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     (FILE 'HOME' ENTERED AT 13:58:23 ON 19 MAY 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS,
     LIFESCI' ENTERED AT 13:58:50 ON 19 MAY 2005
L1       1317150 S KINASE?
L2         21830 S HUMAN (3W) L1
L3       7074887 S CLON? OR EXPRESS? OR RECOMBINANT
L4         10620 S L2 AND L3
L5       3708837 S TESTIS OR EMBRYO? OR ADENOCARCINOMA OR KIDNEY OR (LYMPH (A)NO
L6          1661 S L4 AND L5
L7        290963 S OSTEOSARCOMA OR (SMALL (A)INTESTINE)
L8            70 S L6 AND L7
L9            49 DUP REM L8 (21 DUPLICATES REMOVED)
                 E YU X/AU
L10         2326 S E3
                 E MIRANDA M/AU
L11         1174 S E3
                 E FRIDDLE C J/AU
L12          169 S E3-E6
L13         3657 S L10 OR L11 OR L12
L14           74 S L4 AND L13
L15           17 DUP REM L14 (57 DUPLICATES REMOVED)

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NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 25	CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered
NEWS	4	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	5	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	6	FEB 28	MEDLINE/LMEDLINE reloaded
NEWS	7	MAR 02	GBFULL: New full-text patent database on STN
NEWS	8	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	9	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	10	MAR 22	KOREAPAT now updated monthly; patent information enhanced
NEWS	11	MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	12	MAR 22	PATDPASPC - New patent database available
NEWS	13	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	14	APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	15	APR 04	EMBASE - Database reloaded and enhanced
NEWS	16	APR 18	New CAS Information Use Policies available online
NEWS	17	APR 25	Patent searching, including current-awareness alerts (SDIs), based on application date in CA/CAplus and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications.
NEWS	18	APR 28	Improved searching of U.S. Patent Classifications for U.S. patent records in CA/CAplus

NEWS EXPRESS	JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
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FILE 'HOME' ENTERED AT 13:58:23 ON 19 MAY 2005

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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

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FILE 'SCISEARCH' ENTERED AT 13:58:50 ON 19 MAY 2005
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FILE 'HCAPLUS' ENTERED AT 13:58:50 ON 19 MAY 2005
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FILE 'LIFESCI' ENTERED AT 13:58:50 ON 19 MAY 2005
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=> s kinase2
2 IS NOT A RECOGNIZED COMMAND
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"HELP COMMANDS" at an arrow prompt (=>).

=> s kinase/
'KINASE/' IS NOT A VALID FIELD CODE
For a list of field codes for the current file, enter "HELP SFIELDS"
at an arrow prompt (=>).

=> s kinase?
L1     1317150 KINASE?

=> s human (3w) l1
L2       21830 HUMAN (3W) L1

=> s clon? or express? or recombinant
   1 FILES SEARCHED...
   6 FILES SEARCHED...
L3     7074887 CLON? OR EXPRESS? OR RECOMBINANT

=> s l2 and l3
L4       10620 L2 AND L3

=> s testis or embryo? or adenocarcinoma or kidney or (lymph (a)node)
L5     3708837 TESTIS OR EMBRYO? OR ADENOCARCINOMA OR KIDNEY OR (LYMPH (A)
               NODE)

=> s l4 and l5
```

```
L6        1661 L4 AND L5

=> s osteosarcoma or (small (a)intestine)
L7      290963 OSTEOSARCOMA OR (SMALL (A) INTESTINE)

=> s l6 and l7
L8           70 L6 AND L7

=> dup rem l8
PROCESSING COMPLETED FOR L8
L9           49 DUP REM L8 (21 DUPLICATES REMOVED)

=> d 1-49 ibib ab

L9   ANSWER 1 OF 49  HCAPLUS  COPYRIGHT 2005 ACS on STN DUPLICATE 1
ACCESSION NUMBER:         2005:156228  HCAPLUS
                            Correction of: 2005:16967
DOCUMENT NUMBER:          142:192331
                            Correction of: 142:108390
TITLE:                    Quantitative RT-PCR method for the detection in blood
                          of microarray-identified rheumatoid arthritis-related
                          gene transcripts for diagnosing and monitoring disease
                          state
INVENTOR(S):              Liew, Choong-Chin
PATENT ASSIGNEE(S):       Chondrogene Limited, Can.
SOURCE:                   U.S. Pat. Appl. Publ., 81 pp., Cont.-in-part of U.S.
                          Ser. No. 802,875.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   42
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     US 2005003394         A1    20050106    US 2004-812782          20040330
     US 2004014059         A1    20040122    US 2002-268730          20021009
     US 2004248169         A1    20041209    US 2004-812737          20040330
     US 2004265869         A1    20041230    US 2004-812716          20040330
     US 2005003394         A1    20050106    US 2004-812782          20040330
     US 2005003394         A1    20050106    US 2004-812782          20040330
     WO 2004112589         A2    20041229    WO 2004-US20836         20040621
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
PRIORITY APPLN. INFO.:                    US 1999-115125P     P  19990106
                                          US 2000-477148      B1 20000104
                                          US 2002-268730      A2 20021009
                                          US 2003-601518      A2 20030620
                                          US 2004-802875      A2 20040312
                                          US 2001-271955P     P  20010228
                                          US 2001-275017P     P  20010312
                                          US 2001-305340P     P  20010713
                                          US 2002-85783       A2 20020228
                                          US 2004-809675      A  20040325
                                          US 2004-812782      A  20040330
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AB The present invention is directed to detection and measurement of gene transcripts and their equivalent nucleic acid products in blood for diagnosing and monitoring diseases. The present invention demonstrates that a simple drop of blood may be used to determine the quant. **expression** of various mRNAs that reflect the health/disease state of the subject through the use of quant. reverse transcription-polymerase chain reaction (QRT-PCR) anal. Specifically provided is anal. performed on a drop of blood for detecting, diagnosing and monitoring rheumatoid arthritis using gene-specific and/or tissue-specific primers. The present invention also describes methods by which delineation of the sequence and/or quantitation of the **expression** levels of disease-specific genes allows for an immediate and accurate diagnostic/prognostic test for disease or to assess the effect of a particular treatment regimen.

L9 ANSWER 2 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:121193 HCAPLUS
DOCUMENT NUMBER: 142:214836
TITLE: Biomarkers of cyclin-dependent kinase modulation in cancer therapy
INVENTOR(S): Li, Martha; Rupnow, Brent A.; Webster, Kevin R.; Jackson, Donald G.; Wong, Tai W.
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
SOURCE: PCT Int. Appl., 141 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005012875	A2	20050210	WO 2004-US24424	20040729

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-490890P P 20030729

AB Biomarkers having **expression** patterns that correlate with a response of cells to treatment with one or more cdk modulating agents, and uses thereof. Transcription profiling was used to identify the biomarkers. Specifically, transcription profiling of the effect of a certain cdk2 inhibitor (BMS 387032 0.5 L-tartaric acid salt) on peripheral blood mononuclear cells was first performed. Gene chips were used to quantitate the levels of gene **expression** on a large-scale with Affymetrix human gene chips HG-U95A, B, and C. Next, profiling of a cdk2 inhibitor-treated tumor cell line A28780 at multiple doses and time points was performed to establish a correlation of tumor site response with peripheral blood biomarkers. In order to establish the mol. target-specificity of the potential biomarkers, tumor cell line A2780 treated with anti-cdk2 oligonucleotides was also profiles. Overlapping gene **expression** changes were selected for further evaluation in human ovarian carcinoma xenograft A2780 that were treated with the cdk2 inhibitor. The selected biomarkers were subjected to real-time PCR anal. in order to verify the observed changes from the gene chip anal. The biomarker comprising GenBank accession number W28729 was discovered to have the most consistent and robust regulation in response to cdk inhibition.

Provided are methods for testing or predicting whether a mammal will respond therapeutically to a method of treating cancer that comprises administering an agent that modulates cdk activity.

L9 ANSWER 3 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2005:156681 HCAPLUS
Correction of: 2005:60757
DOCUMENT NUMBER: 142:216629
Correction of: 142:132329
TITLE: Gene **expression** profiles and biomarkers for the detection of hyperlipidemia and other disease-related gene transcripts in blood
INVENTOR(S): Liew, Choong-Chin
PATENT ASSIGNEE(S): Chondrogene Limited, Can.
SOURCE: U.S. Pat. Appl. Publ., 155 pp., Cont.-in-part of U.S. Ser. No. 802,875.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 42
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004248170	A1	20041209	US 2004-812777	20040330
US 2004014059	A1	20040122	US 2002-268730	20021009
US 2004248169	A1	20041209	US 2004-812737	20040330
US 2004248170	A1	20041209	US 2004-812777	20040330
US 2004248170	A1	20041209	US 2004-812777	20040330
US 2004265869	A1	20041230	US 2004-812716	20040330
WO 2004112589	A2	20041229	WO 2004-US20836	20040621

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 1999-115125P	P	19990106
US 2000-477148	B1	20000104
US 2002-268730	A2	20021009
US 2003-601518	A2	20030620
US 2004-802875	A2	20040312
US 2001-271955P	P	20010228
US 2001-275017P	P	20010312
US 2001-305340P	P	20010713
US 2002-85783	A2	20020228
US 2004-809675	A	20040325
US 2004-812777	A	20040330

AB The present invention is directed to detection and measurement of gene transcripts and their equivalent nucleic acid products in blood. Specifically provided is anal. performed on a drop of blood for detecting, diagnosing, and monitoring diseases, and in particular hyperlipidemia, using gene-specific and/or tissue-specific primers. Affymetrix Human Genome U133 and ChondroChip microarrays were used to detect differentially **expressed** gene transcripts in hypertension, obesity, allergy, systemic steroids, coronary artery disease, diabetes type 2, hyperlipidemia, lung disease, bladder cancer, rheumatoid arthritis, osteoarthritis, liver cancer, schizophrenia, Chagas disease, asthma, and

manic depression syndrome. The present invention describes methods by which delineation of the sequence and/or quantitation of the **expression** levels of disease-specific genes allows for an immediate and accurate diagnostic/prognostic test for disease or to assess the effect of a particular treatment regimen.

L9 ANSWER 4 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2005:248644 HCAPLUS
DOCUMENT NUMBER: 142:274057
TITLE: Sequences of human schizophrenia related genes and use for diagnosis, prognosis and therapy
INVENTOR(S): Liew, Choong-chin
PATENT ASSIGNEE(S): Chondrogene Limited, Can.
SOURCE: U.S. Pat. Appl. Publ., 156 pp., Cont.-in-part of U.S. Ser. No. 802,875.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 42
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004241727	A1	20041202	US 2004-812731	20040330
US 2004014059	A1	20040122	US 2002-268730	20021009
US 2004241727	A1	20041202	US 2004-812731	20040330
US 2004248169	A1	20041209	US 2004-812737	20040330
WO 2004112589	A2	20041229	WO 2004-US20836	20040621

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 1999-115125P	P	19990106
US 2000-477148	B1	20000104
US 2002-268730	A2	20021009
US 2003-601518	A2	20030620
US 2004-802875	A2	20040312
US 2004-812731	A	20040330
US 2001-271955P	P	20010228
US 2001-275017P	P	20010312
US 2001-305340P	P	20010713
US 2002-85783	A2	20020228
US 2004-809675	A	20040325

AB The present invention is directed to detection and measurement of gene transcripts and their equivalent nucleic acid products in blood. Specifically provided is anal. performed on a drop of blood for detecting, diagnosing and monitoring diseases using gene-specific and/or tissue-specific primers. The present invention also describes methods by which delineation of the sequence and/or quantitation of the **expression** levels of disease-specific genes allows for an immediate and accurate diagnostic/prognostic test for disease or to assess the effect of a particular treatment regimen. [This abstract record is one of 3 records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

L9 ANSWER 5 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:493840 HCAPLUS
DOCUMENT NUMBER: 141:35466
TITLE: **Human kinase** with homology to rat myotonic dystrophy kinase-related Cdc42 binding kinase α and its gene structure and chrmosomal location
INVENTOR(S): Liu, Wei; Wu, Leeying
PATENT ASSIGNEE(S): Wyeth, John, and Brother Ltd., USA
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004050831	A2	20040617	WO 2003-US35609	20031107
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004121383	A1	20040624	US 2003-702496	20031107

PRIORITY APPLN. INFO.: US 2002-429381P P 20021127

AB This invention provides compns., organisms and methodologies employing a novel **human** protein **kinase**, MCRKI . The novel **human kinase** has sequence homol. to rat myotonic dystrophy kinase-related Cdc42 binding kinase (MRCK) α. The gene encoding the novel kinase is localized in locus 11 q13 of human chromosome 11, and comprises at least 35 exons. The novel protein kinase comprises multiple functional/structural domains that include a kinase domain, a pkinase_C domain, a DAG-PE binding domain, and a CNH domain. Two transcripts of MRCK1, a 4 kb and a 6 kb transcript, were detected in human brain, heart, skeletal muscle, colon, thymus, spleen, **kidney**, liver, small intersting, placenta, lung, and peripheral blood leukocyte. The highest **expression** was in placenta while the lowerst **expression** was in **small intestine**. The sequence and structure similarity between the novel human protein and rat MRCKα indicates that the novel human protein may function as a downstream effector of Cdc42 in cytoskeleton reorganization.

L9 ANSWER 6 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:802537 HCAPLUS
DOCUMENT NUMBER: 141:289087
TITLE: **Expression** and screening for compounds regulating activity of ceramide kinase in tissues, for use in treatment of human diseases
INVENTOR(S): Kossida, Sophia; Encinas, Jeffrey; Takao, Eiko
PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany
SOURCE: U.S. Pat. Appl. Publ., 50 pp., Cont.-in-part of U.S. Ser. No. 969,896, abandonded.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 2004192580	A1	20040930	US 2003-631958		20031219
US 2003125533	A1	20030703	US 2001-969896		20011004
PRIORITY APPLN. INFO.:			US 2000-238005P	P	20001006
			US 2001-314113P	P	20010823
			US 2001-969896	B2	20011004

AB This invention relates to **expression** and screening for compds. regulating activity of ceramide kinase in tissues, for use in treatment of human diseases. Ceramide kinase cDNA and protein sequences, as well as **expression** profiles in various human tissues and cell lines, are provided. Reagents that regulate **human** ceramide **kinase** protein activity and reagents that bind to **human** ceramide **kinase** gene products can be used to regulate intracellular signaling and consequently cell proliferation and apoptosis. Methods of drug screening for reagents influencing ceramide kinase activity in HEK293 cells was exemplified by use of sphingosine derivs., in conjunction with anal. of cellular apoptotic response. Such regulation is particularly useful for treating allergies including but not limited to asthma, autoimmune diseases such as rheumatoid arthritis, inflammatory disease, transplant rejection, and cancer, particularly lymphocytic leukemias, and could be a useful target of vaccination enhancing adjuvants. Central and peripheral nervous system disorders, such as Parkinson's disease, also can be treated.

L9 ANSWER 7 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:513311 HCAPLUS
DOCUMENT NUMBER: 141:65073
TITLE: Lyn kinase-derived peptides for the treatment of cancer
INVENTOR(S): Ben-Sasson, Shmuel; Reuveni, Hadas
PATENT ASSIGNEE(S): Children's Medical Center Corporation, USA; Yissum Research and Development
SOURCE: U.S. Pat. Appl. Publ., 46 pp., Cont.-in-part of U.S. Ser. No. 12,030.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004121952	A1	20040624	US 2003-455787		20030606
US 6723694	B1	20040420	US 1997-861153		19970521
US 2002019346	A1	20020214	US 2000-735279		20001211
US 2002151497	A1	20021017	US 2001-12030		20011211
PRIORITY APPLN. INFO.:			US 1997-861153	A2	19970521
			US 2000-735279	A2	20001211
			US 2001-12030	A2	20011211
			US 2002-385900P	P	20020606
			WO 1998-US10321	A2	19980520

AB The invention provides methods for the treatment of solid tumors by the inhibition of Lyn-associated signal transduction. Preferred inhibitors comprise sequences derived from specific regions of Lyn. The invention also provides a method for the treatment of cancer by the administration of compds. comprising Lyn-derived peptides.

L9 ANSWER 8 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:425202 HCAPLUS
DOCUMENT NUMBER: 141:84455
TITLE: Regulation of NDR2 Protein Kinase by Multi-site Phosphorylation and the S100B Calcium-binding Protein
AUTHOR(S): Stegert, Mario R.; Tamaskovic, Rastislav; Bichsel, Samuel J.; Hergovich, Alexander; Hemmings, Brian A.
CORPORATE SOURCE: Friedrich Miescher Institute for Biomedical Research,

Basel, CH 4058, Switz.
SOURCE: Journal of Biological Chemistry (2004), 279(22), 23806-23812
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Nuclear Dbf2-related (NDR) protein kinases are a family of AGC group kinases that are involved in the regulation of cell division and cell morphol. We describe the **cloning** and characterization of the human and mouse NDR2, a second mammalian isoform of NDR protein kinase. NDR1 and NDR2 share 86% amino acid identity and are highly conserved between human and mouse. However, they differ in **expression** pattern; mouse Ndr1 is **expressed** mainly in spleen, lung and thymus, whereas mouse Ndr2 shows highest **expression** in the gastrointestinal tract. NDR2 is potently activated in cells following treatment with the protein phosphatase 2A inhibitor okadaic acid, which also results in phosphorylation on the activation segment residue Ser-282 and the hydrophobic motif residue Thr-442. We show that Ser-282 becomes autophosphorylated in vivo, whereas Thr-442 is targeted by an upstream kinase. This phosphorylation can be mimicked by replacing the hydrophobic motif of NDR2 with a PRK2-derived sequence, resulting in a constitutively active kinase. Similar to NDR1, the autophosphorylation of NDR2 protein kinase was stimulated in vitro by S100B, an EF-hand Ca2+-binding protein of the S100 family, suggesting that the two isoforms are regulated by the same mechanisms. Further we show a predominant cytoplasmic localization of ectopically **expressed** NDR2.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:23112 HCAPLUS
DOCUMENT NUMBER: 138:69485
TITLE: LIM kinase **expression** diagnostic methods and agents
INVENTOR(S): Bernard, Ora; Foletta, Victoria Caitlin
PATENT ASSIGNEE(S): The Walter and Eliza Hall Institute of Medical Research, Australia
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003003016	A1	20030109	WO 2002-AU834	20020627
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2452202	AA	20030109	CA 2002-2452202	20020627
EP 1412754	A1	20040428	EP 2002-748418	20020627
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004538452	T2	20041224	JP 2003-509148	20020627

US 2005008643 A1 20050113 US 2004-481849 20040913
PRIORITY APPLN. INFO.: AU 2001-5965 A 20010627
US 2001-330361P P 20011018
WO 2002-AU834 W 20020627

AB The present invention relates generally to a method for detecting an aberrant cell in a subject or in a biol. sample from said subject and agents useful for same. The presence of the aberrant cell or group of aberrant cells provides an indication of a particular disease or condition or a propensity for development of a disease or condition. More particularly, the present invention contemplates a method for detecting a cell associated with cancer or having a propensity to develop into a cancer cell in a subject or in a biol. sample from said subject by determining the relative increase in the presence of a LIM kinase protein or a related enzyme or a relative increase in LIM kinase activity or a relative increase in the presence of **expression** products from a gene encoding a LIM kinase or a related protein. The present invention further provides a method for diagnosing the presence of a cancer or cancerous-like growth or distinguishing between an invasive and non-invasive cancer in a subject or in a biol. sample from said subject by screening for up-regulation of a LIM kinase or a related protein in a cell or group of cells or an up-regulation in the presence of **expression** products of genetic sequences encoding a LIM kinase or a related protein. The present invention provides diagnostic agents useful for detecting LIM kinase or **expression** products of genetic material encoding LIM kinase. Such diagnostic agents include immuno-interactive mols., such as antibodies, and genetic probes for detecting **expression** products of LIM kinase genes. The present invention further provides genetically modified animals exhibiting altered levels of LIM kinase. Such animals are useful models for screening for anti-cancer agents.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 10 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:969412 HCAPLUS
DOCUMENT NUMBER: 140:730
TITLE: Human genes deregulated in drug-resistant tumor cells in response to cytotoxic drugs and methods for diagnosis and treatment of cancer
INVENTOR(S): Wittig, Rainer; Poustka, Annemarie; Mollenhauer, Jan; Schadendorf, Dirk
PATENT ASSIGNEE(S): Deutsches Krebsforschungszentrum Stiftung des Oeffentlichen Rechts, Germany
SOURCE: Eur. Pat. Appl., 23 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1369482	A1	20031210	EP 2002-12705	20020607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
WO 2004038020	A1	20040506	WO 2003-EP6061	20030610
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,				

FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: EP 2002-12705 A 20020607

AB The present invention relates to the identification and use of target genes for the detection and treatment of drug-resistant tumor cells. The nucleic acids of the present invention exhibit a deregulated phenotype when the tumor cells are subjected to cytostatic drugs, i.e.. they are **expressed** in a higher or lower amount as compared to parental drug-sensitive cancer cells. Thus, they can be used as a diagnostic and pharmaceutical tool to render drug-resistant cells drug-sensitive. In addition, the present invention includes the polypeptides encoded by the resp. nucleic acids, **expression** vectors harboring the nucleic acids, host cells for **expression** and methods for the diagnosis and treatment of drug-resistant tumor cells.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:597452 HCAPLUS

DOCUMENT NUMBER: 139:228318

TITLE: Identification and Characterization of a Nuclear Interacting Partner of Anaplastic Lymphoma Kinase (NIPA)

AUTHOR(S): Ouyang, Tao; Bai, Ren-Yuan; Bassermann, Florian; von Klitzing, Christine; Klumpen, Silvia; Miething, Cornelius; Morris, Stephan W.; Peschel, Christian; Duyster, Justus

CORPORATE SOURCE: Laboratory of Leukemogenesis, Department of Internal Medicine III, Technical University of Munich, Munich, 81675, Germany

SOURCE: Journal of Biological Chemistry (2003), 278(32), 30028-30036
CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Anaplastic large-cell lymphoma is a subtype of non-Hodgkin lymphomas characterized by the **expression** of CD30. More than half of these lymphomas carry a chromosomal translocation t(2;5) leading to **expression** of the oncogenic tyrosine kinase nucleophosmin-anaplastic lymphoma kinase (NPM-ALK). NPM-ALK is capable of transforming fibroblasts and lymphocytes in vitro and of causing lymphomas in mice. Previously, the authors and others demonstrated phospholipase C-γ and phosphatidylinositol 3-kinase as crucial downstream signaling mediators of NPM-ALK-induced oncogenicity. In this study, the authors used an ALK fusion protein as bait in a yeast two-hybrid screen identifying NIPA (nuclear interacting partner of ALK) as a novel downstream target of NPM-ALK. NIPA encodes a 60-kDa protein that is **expressed** in a broad range of human tissues and contains a classical nuclear translocation signal in its C terminus, which directs its nuclear localization. NIPA interacts with NPM-ALK and other ALK fusions in a tyrosine kinase-dependent manner and is phosphorylated in NPM-ALK-**expressing** cells on tyrosine and serine residues with serine 354 as a major phosphorylation site. Overexpression of NIPA in Ba/F3 cells was able to protect from apoptosis induced by IL-3 withdrawal. Mutations of the nuclear translocation signal or the Ser-354 phosphorylation site impaired the antiapoptotic function of NIPA. In NPM-ALK-transformed Ba/F3 cells, apoptosis triggered by wortmannin treatment was enhanced by overexpression of putative dominant-neg. NIPA mutants. These results implicate an antiapoptotic role for NIPA in NPM-ALK-mediated signaling events.

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 12 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:731257 HCAPLUS
DOCUMENT NUMBER: 140:55530
TITLE: Comparative studies of a new subfamily of **human** Ste20-like **kinases**: homodimerization, subcellular localization, and selective activation of MKK3 and p38
AUTHOR(S): Yustein, Jason T.; Xia, Liang; Kahlenburg, J. Michelle; Robinson, Dan; Templeton, Dennis; Kung, Hsing-Jien
CORPORATE SOURCE: Department of Molecular Biology and Microbiology, Case Western Reserve University, Cleveland, OH, 44106-4960, USA
SOURCE: Oncogene (2003), 22(40), 6129-6141
CODEN: ONCNES; ISSN: 0950-9232
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The Sterile-20 or Ste20 family of serine/threonine kinases is a group of signaling mols. whose physiol. roles within mammalian cells are just starting to be elucidated. Here, in this report we present the characterization of three **human** Ste20-like **kinases** with greater than 90% similarity within their catalytic domains that define a novel subfamily of Ste20s. Members of this kinase family include rat thousand and one (TAO1) and chicken KFC (kinase from chicken). For the lack of a consensus nomenclature in the literature, in this report, we shall call this family hKFC (for their homol. to chicken KFC) and the three members hKFC-A, hKFC-B, and hKFC-C, resp. These kinases have many similarities including an amino terminal kinase domain, a serine-rich region, and a coiled-coil configuration within the C-terminus. All three kinases are able to activate the p38 MAP kinase pathway through the specific activation of the upstream MKK3 kinase. We also offer evidence, both theor. and biochem., showing that these kinases can undergo self-association Despite these similarities, these kinases differ in tissue distribution, apparent subcellular localization, and feature structural differences largely within the carboxyl-terminal sequence.
REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 13 OF 49 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2003:257340 BIOSIS
DOCUMENT NUMBER: PREV200300257340
TITLE: SKIP3, a novel Drosophila tribbles ortholog, is overexpressed in human tumors and is regulated by hypoxia.
AUTHOR(S): Bowers, Alex J.; Scully, Sheila; Boylan, John F. [Reprint Author]
CORPORATE SOURCE: Department of Cancer Biology, Amgen Inc., One Amgen Center Drive, Thousand Oaks, CA, 91320, USA
jboylan@amgen.com
SOURCE: Oncogene, (8 May 2003) Vol. 22, No. 18, pp. 2823-2835. print.
ISSN: 0950-9232 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Jun 2003
Last Updated on STN: 4 Jun 2003
AB Regions of hypoxia are a hallmark of solid tumors. Tumor cells modulate the regulation of specific genes allowing adaptation and survival in the harsh hypoxic environment. We have identified SKIP3, a novel **human kinase**-like gene, which is overexpressed in multiple human tumors and is regulated by hypoxia. SKIP3 is an ortholog of the Drosophila tribbles, rat NIPK, dog C5FW, and human C8FW genes.

Drosophila tribbles is involved in slowing cell-cycle progression during Drosophila development, but little is known regarding the function or tissue distribution of the vertebrate orthologs. We show that the normal tissue **expression** of SKIP3 is confined to human liver, while multiple primary human lung, colon, and breast tumors **express** high levels of SKIP3 transcript. Endogenous SKIP3 protein accumulates within 48 h under hypoxic growth conditions in HT-29 and PC-3 cells, with upregulation of the SKIP3 mRNA transcript by 72 h. We identified activating transcription factor 4 (ATF4) as a SKIP3-binding partner using the yeast-two-hybrid assay. Coexpression of SKIP3 and ATF4 showed that SKIP3 is associated with the proteolysis of ATF4, which can be blocked using a proteosome inhibitor. These results indicate that SKIP3 may be an important participant in tumor cell growth.

L9 ANSWER 14 OF 49 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 4
ACCESSION NUMBER: 2002-12182 BIOTECHDS
TITLE: New **human kinase** proteins and nucleic acids, useful in drug screening assays, identifying modulators of kinase activity or treating disorders characterized by absence or unwanted **expression** of the protein;
transgenic animal generation, DNA chip, DNA probe, DNA primer and drug screening, useful for gene therapy and pharmacogenomics
AUTHOR: YAN C; YE J; KETCHUM K A; DI FRANCESCO V; BEASLEY E M
PATENT ASSIGNEE: APPLERA CORP
PATENT INFO: WO 2002016567 28 Feb 2002
APPLICATION INFO: WO 2000-US26389 24 Aug 2000
PRIORITY INFO: US 2001-810671 19 Mar 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-269354 [31]
AB DERWENT ABSTRACT:
NOVELTY - An isolated **human kinase** peptide (I) comprising: (a) a 445-amino acid sequence (P1) given in the specification; (b) an allelic variant or an ortholog of P1 encoded by a nucleic acid molecule that hybridizes under stringent conditions to the opposite strand of a nucleic acid molecule comprising a sequence of 2354 (S1) or 21234 (S2) base pairs; or (c) a fragment of P1 comprising at least 10 contiguous amino acids, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) an isolated antibody that selectively binds to (I); (2) an isolated nucleic acid molecule (II) comprising a sequence which: (a) encodes P1; (b) encodes an allelic variant or an ortholog of P1, where the nucleotide sequence hybridizes under stringent conditions to the opposite strand of S1 or S2; (c) encodes a fragment of P1 comprising at least 10 contiguous amino acids; or (d) is a complement of a nucleotide sequence of (a)-(c); (3) a gene chip comprising (II); (4) a transgenic non-human animal comprising (II); (5) a nucleic acid vector comprising (II); (6) a host cell containing the vector; (7) producing (I) by introducing a nucleotide sequence encoding any of the amino acid sequences (a)-(d) into a host cell, and culturing the host cell under conditions in which the peptides are **expressed** from the nucleotide sequence; (8) detecting the presence of (I) in a sample by contacting the sample with a detection agent that specifically allows detection of the presence of the peptide in the sample and then detecting the presence of the peptide; (9) detecting the presence of (II) in a sample by contacting the sample with an oligonucleotide that hybridizes to (II) under stringent conditions and determining whether the oligonucleotide binds to the nucleic acid molecule in the sample; (10) identifying a modulator of (I) by contacting (I) with an agent and determining if the agent has modulated the function or activity of (I); (11) identifying an agent that binds to (I) by contacting (I) with an

agent and assaying the contacted mixture to determine if a complex is formed with the agent bound to the peptide; (12) a pharmaceutical composition comprising an agent identified from (11) and a pharmaceutical carrier; (13) treating a disease or condition mediated by a **human kinase** protein by administering to a patient an agent identified from (11); (14) identifying a modulator of the **expression** of (I) by contacting a cell **expressing** (I), with an agent and determining if the agent has modulated the **expression** of the (I); (15) an isolated **human kinase** peptide having an amino acid sequence that shares at least 70% homology with P1; (16) an isolated nucleic acid molecule encoding a **human kinase** peptide and having at least 80% homology with S1 or S2.

BIOTECHNOLOGY - Preferred Method: The agent administered to a host cell comprises an **expression** vector that **expresses** the (I). Preferred Sequences: The isolated **human kinase** peptide preferably shares at least 90% homology with P1. The nucleic acid molecule encoding the isolated **human kinase** peptide preferably shares at least 90% homology with a S1 or S2.

ACTIVITY - Cytostatic; Osteopathic. No supporting data is given.

MECHANISM OF ACTION - Kinase inhibitor.

USE - The nucleic acid and peptide sequences can be used as models for the development of human therapeutic targets, aid in the identification of therapeutic proteins, and serve as targets for the development of human therapeutic agents that modulate kinase activity in cells and tissues that **express** the kinase. The nucleic acids are useful as probes or primers, in constructing **recombinant** vectors, for **expressing** antigenic portions of the proteins, chromosome mapping, drug screening, testing an individual for a genotype, and for gene therapy in patients containing cells that are aberrant in kinase gene **expression**. The proteins may be used in drug screening assays, in the identification of compounds that modulate, stimulate or inhibit kinase activity, in pharmacogenomic analysis, in treating disorders characterized by an absence or unwanted **expression** of the protein (e.g. bone **osteosarcoma**, or colon-moderately differentiated **adenocarcinoma**), and in generating antibodies specific for the peptides. Such antibodies can be used to detect the protein in situ, in vitro, or in cell lysate or supernatant, to isolate and purify the proteins from host cells, pharmacogenomic analysis, tissue typing, and in inhibiting protein function. (80 pages)

L9 ANSWER 15 OF 49 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 5

ACCESSION NUMBER: 2002-17807 BIOTECHDS
TITLE: Nucleic acid molecules encoding calcium/calmodulin-dependent protein kinases, useful for preventing diagnosing and treating e.g. cancers, psoriasis and inflammation; **recombinant** protein production by vector-mediated gene transfer and **expression** in host cell, useful for gene therapy
AUTHOR: YE J; YAN C; DI FRANCESCO V; BEASLEY E M
PATENT ASSIGNEE: PE CORP NY
PATENT INFO: US 6387677 14 May 2002
APPLICATION INFO: US 2001-800960 8 Mar 2001
PRIORITY INFO: US 2001-800960 8 Mar 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-478444 [51]

AB DERWENT ABSTRACT:

NOVELTY - An isolated nucleic acid molecule (I) encoding a calcium/calmodulin-dependent protein kinase, is new.

DETAILED DESCRIPTION - An isolated nucleic acid molecule (I) encoding a calcium/calmodulin-dependent protein kinase, comprising a nucleotide sequence selected from: (a) a nucleotide sequence that encodes

a protein comprising a fully defined 565 amino acid sequence (A1) given in the specification; (b) a nucleotide sequence comprising the fully defined 2061 nucleotide sequence (N1) given in the specification ((N1) is a complementary deoxyribonucleic acid (cDNA) encoding the kinase); and/or (c) a nucleotide sequence comprising the defined 62804 nucleotide sequence (N2) given in the specification ((N2) is a genomic sequence that spans the gene encoding the kinase protein). INDEPENDENT CLAIMS are also included for: (1) a nucleic acid vector (II) comprising (I); (2) a host cell (III) containing the vector (II); (3) producing (IV) a polypeptide comprising (A1), comprising culturing the host cell (III) under conditions sufficient for the production of said polypeptide, and recovering said polypeptide from the host cell culture; and (4) an isolated nucleic acid molecule (I') comprising a nucleotide sequence that is completely complementary to (I).

BIOTECHNOLOGY - Preferred Vectors: The vector (II) is a plasmid, virus or bacteriophage. (I) is inserted into the vector in proper orientation and correct reading frame so that the protein of (A1) may be **expressed** by a cell transformed with the vector. The isolated nucleic acid molecule may be operatively linked to a promoter sequence. Preparation: (I) and the protein it encodes may be produced via standard **recombinant** and synthetic methodologies e.g. by culturing (IV) the cell (III) (claimed).

ACTIVITY - Cytostatic; Anti-inflammatory; Anti-arteriosclerotic; Anti-psoriatic. No biological data given.

MECHANISM OF ACTION - Gene therapy; Protein therapy; Vaccine; Enzymatic (calcium/calmodulin-dependent protein kinase). The gene (I) and encoded protein are related to the family of calcium/calmodulin-dependent protein kinases, which are serine/threonine kinases. The protein shows a particularly high degree of similarity to calcium/calmodulin-dependent protein kinase II (CaM II). CaM II is comprised of alpha, beta, gamma, and delta subunits. Each subunit is encoded by a separate gene and alternatively splice forms of each subunit have been found (Breen et al., Biochem. Biophys. Res. Commun. 236 (2), 473-478 (1997)). CaM II exerts important effects on hormones and neurotransmitters that utilize calcium as a second messenger. Beta-cell CaM II activity is associated with insulin secretion, and multiple isoforms of CaM II are **expressed** in human islets of Langerhans (Breen et al., Biochem. Biophys. Res. Commun. 236 (2), 473-478 (1997)). It has been suggested that CaM II controls activation-induced cellular differentiation, and is important for imparting antigen-dependent memory to T cells (Bui et al., Cell 100: 457-467, 2000).

USE - These polynucleotide sequences (I) and the peptides they encode can be used as models for the development of human therapeutic targets, aid in the identification of therapeutic proteins, and serve as targets for the development of human therapeutic agents that modulate kinase activity in cells and tissues that **express** the kinase. The calcium/calmodulin-dependent protein kinase encoded by (I) is **expressed** in humans in the placenta, breast cancers (including mammary **adenocarcinoma**), skin melanotic melanomas, ovary **adenocarcinomas**, uterus leiomyosarcomas, Burkitt's lymphomas (lymph), duodenal **adenocarcinomas** (**small intestine**), and fetal brain tumors and in disease conditions including inflammation, arteriosclerosis, and psoriasis (claimed).

ADMINISTRATION - Standard methodologies.

ADVANTAGE - Kinase proteins, particularly members of the calcium/calmodulin-dependent protein kinase subfamily, are a major target for drug action and development. Accordingly, it is valuable to the field of pharmaceutical development to identify and characterize previously unknown members of this subfamily of kinase proteins. (I) Encodes a previously unidentified **human kinase** protein that has homology to members of the calcium/calmodulin-dependent protein kinase subfamily.

EXAMPLE - No suitable example given.(85 pages)

L9 ANSWER 16 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:408781 HCAPLUS
DOCUMENT NUMBER: 137:2411
TITLE: Protein and cDNA sequences of **human kinase** sequence homologs
INVENTOR(S): Friddle, Carl Johan; Hilbun, Erin; Mathur, Brian; Turner, C. Alexander, Jr.
PATENT ASSIGNEE(S): Lexicon Genetics Incorporated, USA
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002042438	A2	20020530	WO 2001-US43825	20011119
WO 2002042438	A3	20020829		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002028633	A5	20020603	AU 2002-28633	20011119
US 2002110908	A1	20020815	US 2001-992481	20011119
US 6593125	B2	20030715		
US 2003181705	A1	20030925	US 2003-434034	20030508
US 6815188	B2	20041109		
US 2005089907	A1	20050428	US 2004-948842	20040923

PRIORITY APPLN. INFO.:

US 2000-252011P	P	20001120
US 2001-992481	A1	20011119
WO 2001-US43825	W	20011119
US 2003-434034	A3	20030508

AB This invention provides protein and cDNA sequences for newly identified human proteins, designated NHPs, which shares substantial sequence homol. with animal kinases, especially NEK family kinases and calcium/calmodulin-dependent protein kinase. NEK family kinase homolog gene, which has been mapped on human chromosome 17, is **expressed** in, inter alia, human cell lines and pituitary, thymus, spleen, **lymph node**, bone marrow, trachea, **kidney**, prostate, **testis**, thyroid, adrenal gland, pancreas, salivary gland, stomach, **small intestine**, skeletal muscle,heart, uterus, placenta, adipose, skin, bladder, rectum, pericardium, ovary, fetal **kidney**, fetal lung, gallbladder, tongue, aorta, 6-, 9-, and 12-wk **embryos**, **adenocarcinoma**, **osteosarcoma**, and **embryonic** carcinoma cells. Calcium/calmodulin-dependent protein kinase homolog gene, which has been mapped on human chromosome 3, is predominantly **expressed** in fetal brain, brain, spinal cord, thymus, **lymph node**, trachea, lung, prostate, **testis**, thyroid, adrenal gland, stomach, **small intestine**, skeletal muscle, uterus, placenta, mammary gland, skin, bladder, pericardium, hypothalamus, fetal **kidney**, fetal lung, tongue, aorta, 6-, 9-, and 12-wk **embryos**, and **embryonic** carcinoma cells. In one embodiment, the invention relates to diagnostic assays for detecting diseases associated with inappropriate NHP activity or levels. Also disclosed are methods for utilizing NHP in drug screening assays and in therapy directed against diseases associated with inappropriate NHP activity or levels.

L9 ANSWER 17 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:276032 HCAPLUS
DOCUMENT NUMBER: 136:304111
TITLE: Regulation of **human** sphingosine **kinase**-like protein and uses in diagnosis, therapy and drug screening
INVENTOR(S): Kossida, Sophia; Encinas, Jeffrey
PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 120 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002028906	A2	20020411	WO 2001-EP11516	20011005
WO 2002028906	A3	20021114		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002023593	A5	20020415	AU 2002-23593	20011005
EP 1326986	A2	20030716	EP 2001-986303	20011005
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004510429	T2	20040408	JP 2002-532488	20011005

PRIORITY APPLN. INFO.:		
US 2000-238005P	P	20001006
US 2001-314113P	P	20010823
WO 2001-EP11516	W	20011005

AB Reagents which regulate **human** sphingosine **kinase**-like protein activity and reagents which bind to **human** sphingosine **kinase**-like protein gene products can be used to regulate intracellular signaling intracellular signaling and consequently cell proliferation and apoptosis. Such regulation is particularly useful for treating cancer, allergies including but not limited to asthma, autoimmune diseases such as rheumatoid arthritis, and central and peripheral nervous system disorders, such as Parkinson's disease.

L9 ANSWER 18 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:172058 HCAPLUS
DOCUMENT NUMBER: 136:227966
TITLE: Protein and cDNA sequences of **human** protein **kinase** sequence homologs and uses thereof in diagnosis, therapy and drug screening
INVENTOR(S): Friddle, Carl Johan; Hilbun, Erin; Nepomnichy, Boris; Hu, Yi
PATENT ASSIGNEE(S): Lexicon Genetics Incorporated, USA
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2002018555	A2	20020307	WO 2001-US26776		20010828
WO 2002018555	A3	20030227			

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2001085326	A5	20020313	AU 2001-85326		20010828
US 2002147320	A1	20021010	US 2001-940921		20010828
PRIORITY APPLN. INFO.:			US 2000-229280P	P	20000831
			WO 2001-US26776	W	20010828

AB This invention provides protein and cDNA sequences for newly identified human proteins, designated NHPs, which shares substantial sequence homol. with animal kinases, and particularly NIMA (never in mitosis A) related kinases, serine/threonine kinases, calcium/calmodulin-dependent kinases, and myosin light chain kinases. While NHP shares sequence homol. with other protein kinases, its primary sequence is unique. **Expression** of NHPs can be detected in, inter alia, human cell lines, and human fetal and adult brain, pituitary, cerebellum, spinal cord, thymus, spleen, **lymph node**, bone marrow, trachea, lung, **kidney** , fetal and adult liver, prostate, **testis**, thyroid, **small intestine**, heart, uterus, placenta, mammary gland, adipose, esophagus, cervix, rectum, fetal **kidney**, and fetal lung (SEQID NOS:2 and 4), or human pituitary, **kidney**, thyroid, skeletal muscle, and heart cells (SEQ ID NOS: 7 and 9). The described sequences were compiled from sequences available in GENBANK, and cDNAs generated from **kidney**, **testis**, trachea, esophagus, pituitary, human gene trapped products (SEQ ID NOS: 2 and 4), or bone marrow and skeletal muscle mRNAs. In one embodiment, the invention relates to diagnostic assays for detecting diseases associated with inappropriate NHP activity or levels. Also disclosed are methods for utilizing NHP in drug screening assays and in therapy directed against diseases associated with inappropriate NHP activity or levels.

L9 ANSWER 19 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	2002:107557 HCAPLUS
DOCUMENT NUMBER:	136:162371
TITLE:	**Cloning** and characterization of novel **human** protein **kinase** family members 32374 and 18431 and their therapeutic uses
INVENTOR(S):	Meyers, Rachel; Kapeller-Libermann, Rosana; Silos-Santiago, Immaculada
PATENT ASSIGNEE(S):	Millennium Pharmaceuticals, Inc., USA
SOURCE:	PCT Int. Appl., 141 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002010401	A2	20020207	WO 2001-US23653	20010727
WO 2002010401	A3	20030306		
WO 2002010401	C2	20030912		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,

UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002061573	A1	20020523	US 2001-916790	20010727
EP 1315817	A2	20030604	EP 2001-957286	20010727
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004083496	A1	20040429	US 2003-678786	20031003
PRIORITY APPLN. INFO.:			US 2000-221543P	P 20000728
			US 2001-916790	B1 20010727
			WO 2001-US23653	W 20010727

AB The invention provides isolated nucleic acids mols., designated 32374 or 18431 nucleic acid mols., which encode novel protein kinase family members. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 32374 or 18431 nucleic acid mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which a 32374 or 18431 gene has been introduced or disrupted. Their putative function domains are analyzed and their gene **expression** profiles are provided. The invention still further provides isolated 32374 or 18431 proteins, fusion proteins, antigenic peptides and anti-32374 or -18431 antibodies. Diagnostic methods utilizing compns. of the invention are also provided.

L9 ANSWER 20 OF 49 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:614345 BIOSIS
DOCUMENT NUMBER: PREV200200614345
TITLE: **Human** pEg3 **kinase** associates with and phosphorylates CDC25B phosphatase: A potential role for pEg3 in cell cycle regulation.
AUTHOR(S): Davezac, Noelie; Baldin, Veronique; Blot, Joelle; Ducommun, Bernard; Tassan, Jean-Pierre [Reprint author]
CORPORATE SOURCE: UMR6061-CNRS, IFR 97, Universite de Rennes 1, 2 Avenue du Professeur Leon Bernard, 35043, CS34317, Rennes Cedex, France
Jean-Pierre.Tassan@univ-rennes1.fr
SOURCE: Oncogene, (31 October, 2002) Vol. 21, No. 50, pp. 7630-7641. print.
CODEN: ONCNES. ISSN: 0950-9232.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Dec 2002
Last Updated on STN: 4 Dec 2002

AB The pEg3 protein is a member of the evolutionarily conserved KIN1/PAR-1/MARK kinase family which is involved in cell polarity and microtubule dynamics. In Xenopus, pEg3 has been shown to be a cell cycle dependent kinase whose activity increases to a maximum level during mitosis of the first **embryonic** cell division. CDC25B is one of the three CDC25 phosphatase genes identified in human. It is thought to regulate the G2/M progression by dephosphorylating and activating the CDK/cyclin complexes. In the present study we show that the **human** pEg3 **kinase** is able to specifically phosphorylate CDC25B in vitro. One phosphorylation site was identified and corresponded to serine 323. This residue is equivalent to serine 216 in human CDC25C which plays an important role in the regulation of phosphatase during the cell cycle and at the G2 checkpoint. pEg3 is also able to specifically associate with CDC25B in vitro and in vivo. We show that the ectopic **expression** of active pEg3 in human U2OS cells induces an accumulation of cells in G2. This effect is counteracted by overexpression of CDC25B. Taken together these results suggest that pEg3 is a potential regulator of the G2/M progression and may act antagonistically to the CDC25B phosphatase.

L9 ANSWER 21 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:868653 HCAPLUS
DOCUMENT NUMBER: 136:15959
TITLE: Nucleic acid encoding a **human** serine/threonine protein **kinase** and its screening and therapeutic uses
INVENTOR(S): Wei, Ming-hHi; Zhu, Shiaoping; Woodage, Trevor; Di Francesco, Valentina; Beasley, Ellen M.
PATENT ASSIGNEE(S): Applera Corporation, USA
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001090328	A2	20011129	WO 2001-US16760	20010524
WO 2001090328	A3	20020718		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6482935	B1	20021119	US 2000-691861	20001018
CA 2410081	AA	20011129	CA 2001-2410081	20010524
EP 1290185	A2	20030312	EP 2001-937689	20010524
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003534008	T2	20031118	JP 2001-587124	20010524
US 2003022232	A1	20030130	US 2002-259740	20020930

PRIORITY APPLN. INFO.:

US 2000-206550P	P	20000524
US 2000-691861	A	20001018
WO 2001-US16760	W	20010524

AB The present invention provides the amino acid sequence of a **human** **kinase** protein that is related to the known serine/threonine kinase subfamily, as well as allelic variants and other mammalian orthologs thereof. This unique protein sequence, and the cDNA and genomic sequences that encode this protein, can be used as models for the development of human therapeutic targets, and in the identification of therapeutic proteins, and serve as targets for the development of human therapeutic agents that modulate kinase activity in cells and tissues that **express** the kinase. Exptl. data indicate **expression** in humans in the **testis**, germ cells, brain, placenta, liver, **kidney**, bone marrow, thyroid, heart, lung, skeletal muscle, **small intestine**, and fetal brain. Known single nucleotide polymorphic variations include C215T, G697H, C1781D, T2012V, G2380A, C3103A, G3165A, A3699T, C4623K, A6118G, G7460, and G8628A.

L9 ANSWER 22 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:731031 HCAPLUS
DOCUMENT NUMBER: 135:284078
TITLE: cDNA and protein sequence of a novel human protein 13 and their uses in drug screening, diagnosis and therapeutics
INVENTOR(S): Mao, Yumin; Xie, Yi
PATENT ASSIGNEE(S): Shanghai Biowindow Gene Development Inc., Peop. Rep. China

SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001073063	A1	20011004	WO 2001-CN385	20010323
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CN 1315350	A	20011003	CN 2000-115099	20000324
AU 2001050258	A5	20011008	AU 2001-50258	20010323
PRIORITY APPLN. INFO.:			CN 2000-115099 A	20000324
			WO 2001-CN385 W	20010323

AB This invention provides the cDNA and protein sequence of a novel human protein 13 **cloned** from fetal brain. The mol. weight of protein 13 is 13 kDa in SDS Page and the gene distribution pattern of protein 13 gene is similar to that of the **human** hexose **kinase** identified. The invention discloses process of identification of the antagonist against the polypeptide. The protein 13 can be used to diagnosis and treatment for many diseases e.g. cancers, inflammation, immunol. disease, blood diseases and AIDS.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 23 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:676960 HCAPLUS
DOCUMENT NUMBER: 135:237660
TITLE: Protein and cDNA sequences of novel **human** **kinase** interacting protein homologs and uses thereof in diagnosis, therapy and drug screening
INVENTOR(S): Mathur, Brian; Turner, C. Alexander, Jr.
PATENT ASSIGNEE(S): Lexicon Genetics Incorporated, USA
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001066760	A2	20010913	WO 2001-US7499	20010308
WO 2001066760	A3	20020530		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2401971	AA	20010913	CA 2001-2401971	20010308
US 2002082406	A1	20020627	US 2001-802116	20010308

EP 1343901 A2 20030917 EP 2001-918467 20010308
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR
JP 2004519203 T2 20040702 JP 2001-565914 20010308
PRIORITY APPLN. INFO.: US 2000-187719P P 20000308
WO 2001-US7499 W 20010308

AB This invention provides protein and cDNA sequences for newly identified human proteins, designated NHPs, which shares structural similarity with mammalian sugar and sodium-dependent inorg. phosphate kinase interacting proteins, and NBMPR-sensitive nucleoside kinase interacting proteins. The NHPs are novel proteins that are **expressed** in, inter alia, human cell lines and human fetal and adult brain, pituitary, cerebellum, spinal cord, thymus, spleen, **lymph node**, bone marrow, trachea, fetal and adult **kidney**, liver, prostate, **testis**, thyroid, adrenal gland, salivary gland, stomach, **small intestine**, colon, adipose, rectum, pericardium, hypothalamus, cervix, bladder, esophagus, skin, mammary gland, placenta, uterus, skeletal muscle, pancreas, fetal lung, and ovary cells. In one embodiment, the invention relates to diagnostic assays for detecting diseases associated with inappropriate NHP activity or levels. Also disclosed are methods for utilizing NHP in drug screening assays and in therapy directed against diseases associated with inappropriate NHP activity or levels.

L9 ANSWER 24 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:618177 HCAPLUS
DOCUMENT NUMBER: 135:191337
TITLE: Protein and cDNA sequences of novel **human kinase** homologs and uses thereof in diagnosis, therapy and drug screening
INVENTOR(S): Walke, D. Wade; Hu, Yi; Nepomnichy, Boris; Turner, C. Alexander, Jr.; Zambrowicz, Brian
PATENT ASSIGNEE(S): Lexicon Genetics Incorporated, USA
SOURCE: PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001061016	A2	20010823	WO 2001-US5356	20010215
WO 2001061016	A3	20020207		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2400785	AA	20010823	CA 2001-2400785	20010215
US 2002038011	A1	20020328	US 2001-783320	20010215
EP 1257652	A2	20021120	EP 2001-912839	20010215
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003531577	T2	20031028	JP 2001-559853	20010215

PRIORITY APPLN. INFO.: US 2000-183582P P 20000218
US 2000-184014P P 20000222
WO 2001-US5356 W 20010215

AB This invention provides protein and cDNA sequences for newly identified human proteins, designated NHPs, which shares structural similarity with

animal kinases, including cell division control protein kinases, serine/threonine protein kinases and membrane-associated guanylate kinases (MAGUKs). The NHPs are novel proteins that are **expressed** in, inter alia, human cell lines and human fetal and adult brain, pituitary, cerebellum, thymus, spleen, **lymph node**, bone marrow, trachea, fetal and adult liver, prostate, **testis**, thyroid, adrenal gland, pancreas, salivary gland, stomach, **small intestine**, colon, uterus, placenta, mammary gland, adipose, esophagus, bladder, cervix, rectum, pericardium, hypothalamus, ovary, fetal and adult **kidney**, and fetal lung cells. In one embodiment, the invention relates to diagnostic assays for detecting diseases associated with inappropriate NHP activity or levels. Also disclosed are methods for utilizing NHP in drug screening assays and in therapy directed against diseases associated with inappropriate NHP activity or levels.

L9 ANSWER 25 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:598145 HCAPLUS
DOCUMENT NUMBER: 135:177273
TITLE: **Cloning**, sequencing and therapeutic use of a **human** protein **kinase** 18477
INVENTOR(S): Kapeller-Libermann, Rosana; Meyers, Rachel A.; Williamson, Mark
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 116 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001059080	A1	20010816	WO 2001-US4027	20010208
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1263939	A1	20021211	EP 2001-910461	20010208
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.:

US 2000-182059P	P	20000211
US 2000-659287	A	20000912
WO 2001-US4027	W	20010208

AB Novel **human** protein **kinase** polypeptides, proteins and nucleic acid mols. are disclosed. Amino acid and encoding cDNA sequences of **human** protein **kinase** 18477 are disclosed. An **expression** pattern of the enzyme in human tissues is established. In addition to isolated, full-length kinase proteins, the invention further provides isolated kinase fusion proteins, antigenic peptides, and anti-sense antibodies. The invention also provides kinase nucleic acid mols., **recombinant expression** vectors containing nucleic acid mols. of the invention, host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which a kinase gene has been introduced or disrupted. Diagnostic, screening, and therapeutic methods utilizing compns. of the invention are also provided.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 26 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:526202 HCAPLUS
DOCUMENT NUMBER: 135:117962
TITLE: cDNA and protein sequence of interleukin reporter-associated kinase sequence homolog IRAK-4 from human and mouse and their use in drug screening, diagnosis and therapeutics
INVENTOR(S): Wesche, Holger; Li, Shyun
PATENT ASSIGNEE(S): Tularik Inc., USA
SOURCE: PCT Int. Appl., 89 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2001051641	A1	20010719	WO 2001-US1171		20010112
WO 2001051641	C2	20020808			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
US 2003059916	A1	20030327	US 2001-759595		20010111
US 6818419	B2	20041116			
CA 2397481	AA	20010719	CA 2001-2397481		20010112
EP 1248847	A1	20021016	EP 2001-903060		20010112
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2004500074	T2	20040108	JP 2001-551215		20010112
PRIORITY APPLN. INFO.:			US 2000-176395P	P	20000113
			WO 2001-US1171	W	20010112

AB The present invention provides nucleic acids and polypeptides for IRAK-4, a novel member of the IRAK family of protein kinases. Members of the IRAK family are indispensable signal transducer for members of the IL-1R/Toll family of transmembrane receptors, including IL-1 receptors, IL-18 receptors and LPS receptors. IRAK-4 sequences from human and mouse are provided, as are methods for identifying compds. useful in the treatment or prevention of inflammatory diseases.
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 27 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:427336 HCAPLUS
DOCUMENT NUMBER: 135:41380
TITLE: **Cloning** and characterization of a gene for a tyrosine phosphorylation-stimulating ligand, VEGF-C, for the FLT4 receptor tyrosine kinase
INVENTOR(S): Alitalo, Kari; Joukov, Vladimir
PATENT ASSIGNEE(S): Ludwig Institute for Cancer Research, USA; Helsinki University Licensing, Ltd. Oy
SOURCE: U.S., 68 pp., Cont.-in-part of U.S. Ser. No. 510,133.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 12
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6245530	B1	20010612	US 1996-585895	19960112
US 6221839	B1	20010424	US 1995-510133	19950801
US 6403088	B1	20020611	US 1996-601132	19960214
US 6645933	B1	20031111	US 1996-671573	19960628
CA 2228248	AA	19970213	CA 1996-2228248	19960801
WO 9705250	A2	19970213	WO 1996-FI427	19960801
WO 9705250	A3	19970410		
W: AU, CA, CN, JP, NO, NZ, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9666169	A1	19970226	AU 1996-66169	19960801
AU 711578	B2	19991014		
EP 842273	A2	19980520	EP 1996-925768	19960801
EP 842273	B1	20050309		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11510689	T2	19990921	JP 1997-507262	19960801
AT 290594	E	20050315	AT 1996-925768	19960801
WO 9833917	A1	19980806	WO 1998-US1973	19980202
W: AU, CA, CN, JP, NZ, US, US, US, US, US, US, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 755708	B2	20021219	AU 2000-10072	20000113
US 6818220	B1	20041116	US 2000-534376	20000324
US 6818220	A	20041116		
US 6730658	B1	20040504	US 2000-631092	20000802
US 2004147726	A1	20040729	US 2004-792461	20040303
US 2004147448	A1	20040729	US 2004-792480	20040303
PRIORITY APPLN. INFO.:			US 1995-510133	A2 19950801
			US 1994-340011	A2 19941114
			US 1996-585895	A2 19960112
			US 1996-601132	A2 19960214
			US 1996-671573	A 19960628
			AU 1996-66169	A3 19960801
			WO 1996-FI427	W 19960801
			US 1997-795430	A2 19970205
			WO 1998-US1973	W 19980202
			US 1999-355700	A1 19991105
			US 2000-534376	A1 20000324

AB Provided are protein and cDNA sequences of a tyrosine phosphorylation-stimulating ligand, VEGF-C, for the receptor tyrosine kinase, Flt4. VEGF-C, a 23 kDa protein that binds the FLT4 receptor tyrosine kinase and stimulates tyrosine phosphorylation of FLT4 is characterized and a cDNA. The ligand is of potential therapeutic use in controlling the proliferation of endothelial cells. The protein was purified from conditioned medium of PC-3 cell culture by affinity chromatog. A cDNA encoding the ligand was **cloned** by PCR. The cDNA encoded a protein of approx. 47 kDa that appears to be a precursor that is processed via a 32 kDa intermediate to the mature 23 kDa form that forms a dimer. Alternate splicing of the mRNA appears to occur in response to hypoxia. High-level **expression** of the gene from the K14 keratin promoter in transgenic mice led to abundant growth of lymphatic vessels in the skin. Also provided are vectors encoding the ligands, pharmaceutical compns. and diagnostic reagents.

REFERENCE COUNT: 141 THERE ARE 141 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 28 OF 49 MEDLINE on STN
ACCESSION NUMBER: 2001453349 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11384995
TITLE: Sp1 plays a critical role in the transcriptional activation of the **human** cyclin-dependent **kinase**

inhibitor p21(WAF1/Cip1) gene by the p53 tumor suppressor protein.
AUTHOR: Koutsodontis G; Tentes I; Papakosta P; Moustakas A; Kardassis D
CORPORATE SOURCE: Department of Basic Sciences, University of Crete Medical School, Heraklion GR-71110, Greece.
SOURCE: Journal of biological chemistry, (2001 Aug 3) 276 (31) 29116-25. Electronic Publication: 2001-05-30. Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200109
ENTRY DATE: Entered STN: 20010814
Last Updated on STN: 20030105
Entered Medline: 20010913

AB In the present study we present evidence for the critical role of Sp1 in the mechanism of transactivation of the human cell cycle inhibitor p21(WAF1/Cip1) (p21) gene promoter by the tumor suppressor p53 protein. We found that the distal p53-binding site of the p21 promoter acts as an enhancer on the homologous or heterologous promoters in hepatoma HepG2 cells. In transfection experiments, p53 transactivated the p21 promoter in HaCaT cells that **express** Sp1 but have a mutated p53 form. In contrast, p53 could not transactivate the p21 promoter in the Drosophila **embryo**-derived Schneider's SL2 cells that lack endogenous Sp1 or related factors. Cotransfection of SL2 cells with p53 and Sp1 resulted in a synergistic transactivation of the p21 promoter. Synergistic transactivation was greatly decreased in SL2 cells and HaCaT cells by mutations in either the p53-binding site or in the -82/-77 Sp1-binding site indicating functional cooperation between Sp1 and p53 in the transactivation of the p21 promoter. Synergistic transactivation was also decreased by mutations in the transactivation domain of p53. Physical interactions between Sp1 and p53 proteins were established by glutathione S-transferase pull-down and coimmunoprecipitation assays. By using deletion mutants we found that the DNA binding domain of Sp1 is required for its physical interaction with p53. In conclusion, Sp1 must play a critical role in regulating important biological processes controlled by p53 via p21 gene activation such as DNA repair, cell growth, differentiation, and apoptosis.

L9 ANSWER 29 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:729015 HCAPLUS
DOCUMENT NUMBER: 136:18718
TITLE: A phosphatidylinositol 3-kinase/Akt pathway promotes translocation of Mdm2 from the cytoplasm to the nucleus
AUTHOR(S): Mayo, Lindsey D.; Donner, David B.
CORPORATE SOURCE: Department of Microbiology and Immunology, Indiana University School of Medicine, Indianapolis, IN, 46202, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2001), 98(20), 11598-11603 CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The Mdm2 oncoprotein promotes cell survival and cell cycle progression by inhibiting the p53 tumor suppressor protein. To regulate p53, Mdm2 must gain nuclear entry, and the mechanism that induces this is now identified. Mitogen-induced activation of phosphatidylinositol 3-kinase (PI3-kinase) and its downstream target, the Akt/PKB serine-threonine kinase, results in phosphorylation of Mdm2 on serine 166 and serine 186. Phosphorylation on these sites is necessary for translocation of Mdm2 from the cytoplasm into

the nucleus. Pharmacol. blockade of PI3-kinase/Akt signaling or **expression** of dominant-neg. PI3-kinase or Akt inhibits nuclear entry of Mdm2, increases cellular levels of p53, and augments p53 transcriptional activity. **Expression** of constitutively active Akt promotes nuclear entry of Mdm2, diminishes cellular levels of p53, and decreases p53 transcriptional activity. Mutation of the Akt phosphorylation sites in Mdm2 produces a mutant protein that is unable to enter the nucleus and increases p53 activity. The demonstration that PI3-kinase/Akt signaling affects Mdm2 localization provides insight into how this pathway, which is inappropriately activated in many malignancies, affects the function of p53.

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 30 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:779734 HCAPLUS
DOCUMENT NUMBER: 136:83702
TITLE: MST4, a new Ste20-related kinase that mediates cell growth and transformation via modulating ERK pathway
AUTHOR(S): Lin, Jei-Liang; Chen, Hua-Chien; Fang, Hsin-I.; Robinson, Dan; Kung, Hsing-Jien; Shih, Hsiu-Ming
CORPORATE SOURCE: Division of Molecular and Genomic Medicine, National Health Research Institutes, Taipei, 11529, Taiwan
SOURCE: Oncogene (2001), 20(45), 6559-6569
CODEN: ONCNES; ISSN: 0950-9232
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In this study, the authors report the **cloning** and characterization of a novel **human** Ste20-related **kinase** that the authors designated MST4 (accession number AF231012). The 416 amino acid full-length MST4 contains an amino-terminal kinase domain, which is highly homologous to MST3 and SOK, and a unique carboxy-terminal domain. Northern blot anal. indicated that MST4 is highly **expressed** in placenta, thymus, and peripheral blood leukocytes. Wild-type but not kinase-dead MST4 can phosphorylate myelin basic protein in an in vitro kinase assay. MST4 specifically activates ERK but not JNK or p38 MAPK in transient transfected cells or in stable cell lines. Overexpression of dominant neg. MEK1 or treatment with PD98059 abolishes MST4-induced ERK activity, whereas dominant-neg. Ras or c-Raf-1 mutants failed to do so, indicating MST4 activates MEK1/ERK via a Ras/Raf-1 independent pathway. HeLa and Phoenix cell lines overexpressing wild-type, but not kinase-dead, MST4 exhibit increased growth rate and form aggressive soft-agar colonies. These phenotypes can be inhibited by PD98059. These results provide the first evidence that MST4 is biol. active in the activation of MEK/ERK pathway and in mediating cell growth and transformation.
REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 31 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:861815 HCAPLUS
DOCUMENT NUMBER: 134:26116
TITLE: Protein and cDNA sequences of **human** and mouse protein **kinase** sequence homologs, and uses thereof in identifying novel kinase inhibitor
INVENTOR(S): Bird, Timothy A.; Virca, G. Duke; Martin, Unja; Anderson, Dirk M.
PATENT ASSIGNEE(S): Immunex Corporation, USA
SOURCE: PCT Int. Appl., 106 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000073468	A1	20001207	WO 2000-US14696	20000526
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2374612	AA	20001207	CA 2000-2374612	20000526
EP 1181374	A1	20020227	EP 2000-939378	20000526
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6514719	B1	20030204	US 2000-579664	20000526
US 2003162277	A1	20030828	US 2003-355975	20030130
US 6759223	B2	20040706		

PRIORITY APPLN. INFO.:	US 1999-136781P	P 19990528
	US 2000-579664	A3 20000526
	WO 2000-US14696	W 20000526

AB The invention is directed to purified and isolated novel murine and **human kinase** polypeptides, the nucleic acids encoding such polypeptides, processes for production of **recombinant** forms of such polypeptides, antibodies generated against these polypeptides, fragmented peptides derived from these polypeptides, and the uses of the above. Protein and cDNA sequences of novel **human** mouse protein **kinase** sequence homologs are identified by querying sequence data bases with DNA sequences from murine dendritic cell, murine **lymph node** stromal cell, human dendritic cell and human spleen cDNA library, using an algorithm designed to recognize kinase subdomains. The invention further relates to methods for identifying novel kinase inhibitor.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 32 OF 49 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2001:19690 SCISEARCH
THE GENUINE ARTICLE: 384PB
TITLE: Retroviral transduction of cancer cell lines with the gene encoding Drosophila melanogaster multisubstrate deoxyribonucleoside kinase
AUTHOR: Zheng X Y; Johansson M; Karlsson A (Reprint)
CORPORATE SOURCE: Huddinge Univ Hosp, Karolinska Inst, Div Clin Virol, S-14186 Huddinge, Sweden (Reprint)
COUNTRY OF AUTHOR: Sweden
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (15 DEC 2000) Vol. 275, No. 50, pp. 39125-39129.
Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814 USA.
ISSN: 0021-9258.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 40

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Nucleoside kinases from several species are investigated as "suicide genes" for treatment of malignant tumors by combined gene/chemotherapy, We have recently **cloned** a multisubstrate deoxyribonucleoside kinase of Drosophila melanogaster (Dm-dNK), and we have shown that the enzyme phosphorylates cytotoxic pyrimidine and purine nucleoside analogs. The broad substrate specificity of the enzyme, as well as its very high

catalytic rate, makes it a unique member of the nucleoside kinase enzyme family. In the present study, we evaluated Dm-dNK as a suicide gene by constructing a replication-deficient retroviral vector that **expresses** the enzyme, The human pancreatic **adenocarcinoma** cell line MIA PaCa-2 and a thymidine kinase deficient **osteosarcoma** cell line were transduced with the **recombinant** virus. We showed that Dm-dNK can be **expressed** in human cells, that the enzyme retained its enzymatic activity, and that it is localized in the cell nuclei due to a nuclear localization signal in its C-terminal region. The cells **expressing** Dm-dNK exhibited increased sensitivity to several cytotoxic nucleoside analogs, such as 1-beta -D-arabinofuranosylcytosine, 1-beta -D-arabinofuranosylthymine, (E)-5-(2-bromovinyl)-2'-deoxyuridine, 2-chloro-2'-deoxyadenosine, and 2',2'-difluorodeoxycytidine. These findings suggest that Dm-dNK may be used as a suicide gene in combined gene/chemotherapy of cancer.

L9 ANSWER 33 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:853562 HCAPLUS
DOCUMENT NUMBER: 134:191706
TITLE: Nerve injury-associated kinase: a sterile 20-like protein kinase up-regulated in dorsal root ganglia in a rat model of neuropathic pain
AUTHOR(S): Rausch, O.; Newton, R. A.; Bingham, S.; Macdonald, R.; Case, C. P.; Sanger, G. J.; Lawson, S. N.; Reith, A. D.
CORPORATE SOURCE: Department of Neuroscience Research, SmithKline Beecham Pharmaceuticals, Harlow, Essex, CM19 5AW, UK
SOURCE: Neuroscience (Oxford) (2000), 101(3), 767-777
CODEN: NRSCDN; ISSN: 0306-4522
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Partial injury of the rat sciatic nerve elicits a variety of characteristic chemical, electrophys. and anatomical changes in primary sensory neurons and constitutes a physiol. relevant model of neuropathic pain. To elucidate mol. mechanisms that underlie the physiol. of neuropathic pain, mRNA differential display was used to identify genes that exhibit increased ipsilateral **expression** in L4/5 dorsal root ganglia, following unilateral partial ligation of the rat sciatic nerve. One set of partial complementary DNA **clones** identified in this screen encoded a protein kinase, nerve injury-associated kinase. **Cloning** of the full-length **human** nerve injury-associated **kinase** complementary DNA, together with **recombinant** **expression** anal., revealed nerve injury-associated kinase to be a functional member of a subgroup of sterile 20-like protein kinases characterized by the presence of a putative carboxy terminal autoregulatory domain. Induction of nerve injury-associated kinase **expression** in dorsal root ganglia in the rat neuropathic pain model was confirmed by quant. reverse transcription-polymerase chain reaction, and RNA in situ hybridization anal. revealed enhanced levels of nerve injury-associated kinase within neurons. Together, the data implicate nerve injury-associated kinase as a novel upstream component of an intracellular signaling cascade that is up-regulated in dorsal root ganglia neurons in response to sciatic nerve injury.
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 34 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:664640 HCAPLUS
DOCUMENT NUMBER: 134:348720
TITLE: **Cloning** and tissue **expressive** pattern analysis of the **human** ribosomal S6 **kinase**-RPS6KA5 cDNA
AUTHOR(S): Jiang, Chun Ling; Yu, Long; Zhang, Hong Lai; Zhang,

Ming; Fu, Qiang; Zhao, Yong; Geng, Zhen Cheng; Zhao, Shou Yuan
CORPORATE SOURCE: Institute of Genetics, Fudan University, Shanghai, 200433, Peop. Rep. China
SOURCE: Shiyan Shengwu Xuebao (2000), 33(2), 119-127
CODEN: SYSWAE; ISSN: 0001-5334
PUBLISHER: Shanghai Kexue Jishu Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB **Human** ribosomal protein S6 **kinase** includes 2 protein families: P90RSK and P70S6K; they participate in 2 different signaling pathways. When the 2 kinases were inhibited by their antibodies or rapamycin, the proliferation of cells was arrested. However, their analog, the immunosuppressant FK-506, can inhibit the proliferation of fibroblast PBL1 without interfering with the activities of P90KSK, P70S6K and MAPK. The tactics of "homolog screening" were used to demonstrate whether there are some novel proteins which can substitute for the known P90RSK and P70S6K or other pathways without interfering with the known P90RSK and P70S6K. With the conserved sequence of mouse p90RSK as a probe, the homologous sequence in NCBI EST database was screened and 3 human EST fragments were found. With the assembled contig as a probe to screen human brain cDNA library, a full-length cDNA of 3833 bp was attained. It contains a completed open reading frame from 165 to 2570 bp, encoding 802 amino acids. The putative protein has higher homol. with other members of p90RSK family. The gene was named RPS6KA5; the accession number in GenBank is AF090421. Northern hybridization showed the gene **expressed** in 16 human tissues tested, and the gene was localized in 14q31-32.1 by RH mapping. Another novel P70S6K gene has also been **cloned**. Thus, the initial presumption that there is an analog of known P90RSK and P70S6K in human beings was proved.

L9 ANSWER 35 OF 49 LIFESCI COPYRIGHT 2005 CSA on STN
ACCESSION NUMBER: 2000:98702 LIFESCI
TITLE: Assignment of human GADD45G to chromosome 9q22.1 arrow right q22.3 by radiation hybrid mapping
AUTHOR: Gong, R.; Yu, L.; Zhang, H.; Tu, Q.; Zhao, Y.; Yang, J.; Xu, Y.; Zhao, S.
CORPORATE SOURCE: Institute of Genetics, Fudan University, 220 Handan Road, Shanghai 200433 P.R., China; E-mail: longyu@fudan.edu.cn
SOURCE: Cytogenetics and Cell Genetics [Cytogenet. Cell Genet.], (20000000) vol. 88, no. 1-2, pp. 95-96.
ISSN: 0301-0171.
DOCUMENT TYPE: Journal
FILE SEGMENT: G
LANGUAGE: English
SUMMARY LANGUAGE: English

AB The growth arrest and DNA damage inducible (GADD) genes represent a family of genes that were identified on the basis of rapid induction by treatment with DNA-damaging agents or by certain growth arrest conditions (Fornace et al., 1988). GADD45, in particular, is a group of genes that are induced by a certain subset of environmental stresses, such as methyl methanesulfonate (MMS), ultraviolet, and ionizing radiation (Fornace et al., 1992). It has been reported that GADD45 played a role in negative growth control, including cell cycle arrest, DNA repair, and/or apoptosis (Liebermann et al., 1998). Recently, two cDNA sequences, which are 1378 bp and 1060 bp, respectively were isolated in our laboratory (GenBank) Accession Number AF087853 and AF087883). The cDNA nucleotide sequences predict two proteins of 160 amino acids and 159 amino acids, which were recently reported as GADD45 beta and GADD45 gamma (Takekawa et al., 1998). Northern blot analysis of mRNA from human multiple tissues (MTN I and II, **Clontech**) detects predominant mRNA species about 1.4 kb for GADD45 beta and 1.35 kb for GADD45 gamma . The GADD45 beta is **expressed** in most tissues, with the exception of thymus, **small intestine**, and brain, whereas the **expression** of GADD45

gamma was most abundant in the heart, placenta, skeletal muscle, prostate, **testis**, and ovary. Recent evidence suggested these GADD45-like proteins were able to activate MTK1 (a **human kinase** MAPKKK) **kinase** activity, both in vivo and in vitro, via binding to an N-terminal domain of MTK1, which is upstream of both the p38 and JNK (c-Jun N-terminal kinase) MAPK pathway involved in apoptosis (Chen et al., 1996).

L9 ANSWER 36 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:714527 HCAPLUS
DOCUMENT NUMBER: 132:45656
TITLE: Mammalian homologues of the plant Tousled gene code for cell-cycle-regulated kinases with maximal activities linked to ongoing DNA replication
AUTHOR(S): Sillje, H. H. W.; Takahashi, K.; Tanaka, K.; Van Houwe, G.; Nigg, E. A.
CORPORATE SOURCE: Department of Molecular Biology, Sciences II, 30 quai Ernest-Ansermet, University of Geneva, Geneva, CH-1211/4, Switz.
SOURCE: EMBO Journal (1999), 18(20), 5691-5702
CODEN: EMJODG; ISSN: 0261-4189
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The Tousled (TSL) gene of the plant Arabidopsis thaliana encodes a serine/threonine kinase that is essential for proper flower development. Here the authors report the **cloning** and characterization of two human putative homologs of the Arabidopsis TSL gene, termed TLK1 and TLK2 (Tousled-like kinase). At the protein level, the two human Tlks share 84% sequence similarity with each other and almost 50% with Arabidopsis Tsl. Furthermore, nuclear localization signals and predicted coiled-coil regions are conserved in the N-terminal domains of all three kinases. The mammalian Tlks share several functional properties with plant Tsl, including a broad **expression**, a propensity to dimerize and autophosphorylate, and a preference for similar substrates. Most interestingly, human Tlks are cell-cycle-regulated enzymes, displaying maximal activities during S phase. Whereas protein levels are virtually constant throughout the cell cycle, both Tlks appear to be regulated by cell-cycle-dependent phosphorylation. Drug-induced inhibition of DNA replication causes a rapid loss of Tlk activity, indicating that Tlk function is tightly linked to ongoing DNA replication. These findings provide the first biochem. clues as to the possible mol. functions of Tlks, a highly conserved family of kinases implicated in the development of multicellular organisms.
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 37 OF 49 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 2000021769 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10552933
TITLE: **Cloning**, characterization, and chromosome mapping of RPS6KC1, a novel putative member of the ribosome protein S6 kinase family, to chromosome 12q12-q13.1.
AUTHOR: Zhang H; Yu L; Mao N; Fu Q; Tu Q; Gao J; Zhao S
CORPORATE SOURCE: Institute of Genetics, Fudan University, Shanghai, 200433, People's Republic of China.
SOURCE: Genomics, (1999 Nov 1) 61 (3) 314-8.
Journal code: 8800135. ISSN: 0888-7543.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF037447
ENTRY MONTH: 200002

ENTRY DATE: Entered STN: 20000229
Last Updated on STN: 20000229
Entered Medline: 20000214

AB A novel cDNA encoding a putative Ser/Thr protein kinase was isolated from a human skeletal muscle cDNA library. It contains an open reading frame that extends from nt 104 to 1510 and codes for a protein of 469 amino acids. A catalytic domain containing the conserved residues of the Ser/Thr protein kinase, especially **human** ribosome protein S6 **kinase** (RSK), was found to be located in the C-terminal end of the deduced protein. The gene was mapped to human chromosome 12q12-q13.1 by fluorescence in situ hybridization, and this result was confirmed with the Radiation Hybrid GB4 panel. Northern hybridization showed that the novel gene is **expressed** in all 16 human tissues tested with especially strong **expression** in **testis**, skeletal muscle, and brain, whereas weak **expression** was detected in **kidney**, thymus, **small intestine**, liver, lung, heart, and colon.

L9 ANSWER 38 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:475286 HCAPLUS
DOCUMENT NUMBER: 131:240878
TITLE: **Expression** analysis of glycogen synthase kinase-3 in human tissues
AUTHOR(S): Lau, K.-F.; Miller, C. C. J.; Anderton, B. H.; Shaw, P.-C.
CORPORATE SOURCE: The Chinese University of Hong Kong, Hong Kong, Peop. Rep. China
SOURCE: Journal of Peptide Research (1999), 54(1), 85-91
CODEN: JPERFA; ISSN: 1397-002X
PUBLISHER: Munksgaard International Publishers Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Human** glycogen synthase **kinase**-3 (GSK-3) is a multisubstrate, proline-directed kinase that phosphorylates tau protein, β-amyloid, and neurofilaments. Here, the **expression** levels of the 2 GSK-3 isoforms, α and β, RNA and proteins in different human tissues were examined Northern anal. demonstrated that GSK-3α was encoded by a 2.6-kb mRNA and GSK-3β by 8.3- and 2.8-kb mRNAs. The 2 GSK-3β mRNA species were variably **expressed** in different tissues. Northern and quant. polymerase chain reaction demonstrated that both GSK-3α and GSK-3β mRNA were prominently **expressed** in **testis**, thymus, prostate and ovary but were low in adult lung and **kidney**. Western blot anal. showed that the 51-kDa GSK-3α protein was highly **expressed** in lung, ovary, **kidney**, and **testis**, whereas the 46-kDa GSK-3β protein was highly **expressed** in lung, **kidney** , and brain. The differential **expression** of GSK-3α and GSK-3β mRNA and proteins and the lack of relation between transcription and translation in some tissues indicated that GSK-3α and GSK-3β are subject to different means of regulation.

REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 39 OF 49 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 1998-10800 BIOTECHDS
TITLE: **Human** protein-**kinase**-C-inhibitor-like protein;
recombinant protein preparation by vector **expression** in host cell, antibody, agonist, antagonist and DNA probe, used for cancer, autoimmune disorder or cognitive disorder therapy
AUTHOR: Hillman J L
PATENT ASSIGNEE: Incyte-Pharm.

LOCATION: Palo Alto, CA, USA.
PATENT INFO: WO 9839444 11 Sep 1998
APPLICATION INFO: WO 1998-US4402 5 Mar 1998
PRIORITY INFO: US 1997-812828 6 Mar 1997
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 1998-495848 [42]

AB A **human** protein-**kinase**-C-inhibitor-like protein has a specified 118 amino acid protein sequence. Also claimed are: protein fragments; a specified 471 bp DNA sequence encoding the protein (or cDNA); a DNA probe containing the new DNA; a vector containing the DNA; a host cell containing the vector; an antibody that binds to the protein; and an agonist or antagonist (e.g. antisense nucleic acid) that modulates activity of the protein. The host cell may be used to produce the protein recombinantly, and the protein may be used for therapy of cancer of the brain, liver, colon, **small intestine**, large intestine, mamma, ovary, **kidney**, lung or prostate, an autoimmune disorder such as rheumatoid arthritis, multiple sclerosis, scleroder, Grave disease, Sjogren disease, Crohn disease, diabetes, lupus, allergies, asthma or myasthenia gravis, or a cognitive disorder such as Alzheimer disease, dementia or learning disabilities. In an example, the new DNA was isolated from a human ADRENOT07 cDNA library. (58pp)

L9 ANSWER 40 OF 49 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 1999077743 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9858806
TITLE: Identification and characterization of STK12/Aik2: a human gene related to aurora of Drosophila and yeast IPL1.
AUTHOR: Kimura M; Matsuda Y; Yoshioka T; Sumi N; Okano Y
CORPORATE SOURCE: Department of Molecular Pathobiochemistry, Gifu University School of Medicine, Gifu (Japan).
SOURCE: Cytogenetics and cell genetics, (1998) 82 (3-4) 147-52. Journal code: 0367735. ISSN: 0301-0171.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199902
ENTRY DATE: Entered STN: 19990216
Last Updated on STN: 20020420
Entered Medline: 19990201

AB Mutations in aurora of Drosophila and related Saccharomyces cerevisiae IPL1 protein kinases are known to cause abnormal chromosome segregation. We earlier isolated a cDNA encoding a novel **human** protein **kinase** Aik which shares high amino acid identity with the Aurora/Ipl1 protein kinase family. In the present study, a second human cDNA highly homologous to aurora/IPL1 (Aik2) was identified and the nucleotide sequence was determined (gene symbol STK12). The C-terminal kinase domain of the STK12 encoded protein shares high amino acid sequence identity with those of mouse STK-1 (90%), rat AIM-1 (90%), human Aik (69%), mouse IAK1/Ayk1 (69%), Xenopus pEg2 (68%), Drosophila Aurora (62%), and yeast Ipl1 (45%), whereas the N-terminal domain of the STK12 protein shares little homology with those of Aurora/Ipl1 family members except for AIM-1 and STK-1. Northern blotting analyses revealed that STK12 **expression** was high in thymus, while low level **expression** was detected in **small intestine**, **testis**, colon, spleen, and brain. The STK12 protein content in HeLa cells is low in S phase, but it accumulates during M phase. STK12 was mapped to human chromosome 17p13.1 by fluorescence in situ hybridization. The chromosome location of STK12 was further defined using a radiation hybrid panel (Stanford G3), that showed a linkage with marker WI-7901 (LOD Score 7.83) located between D17S938 and D17S786.

L9 ANSWER 41 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:29361 HCAPLUS
DOCUMENT NUMBER: 128:152647
TITLE: Peutz-Jeghers syndrome is caused by mutations in a novel serine threonine kinase
AUTHOR(S): Jenne, Dieter E.; Reimann, Heike; Nezu, Jun-ichi; Friedel, Waltraut; Loff, Steffan; Jeschke, Reinhard; Muller, Oliver; Back, Walter; Zimmer, Michael
CORPORATE SOURCE: Dep. Neuroimmunol., Max-Planck-Inst. Psychiatry, Martinsried, 82152, Germany
SOURCE: Nature Genetics (1998), 18(1), 38-43
CODEN: NGENEC; ISSN: 1061-4036
PUBLISHER: Nature America
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Peutz-Jeghers (PJ) syndrome is an autosomal-dominant disorder characterized by melanocytic macules of the lips, multiple gastrointestinal hamartomatous polyps, and an increased risk for various neoplasms, including gastrointestinal cancer. The PJ gene was recently mapped to chromosome 19p13.3 by linkage anal., with the highest lod score at marker D19S886. In a distance of 190 kb proximal to D19S886, the authors identified and characterized a novel human gene encoding the serine threonine kinase STK11. In a three-generation PJ family, the authors found an STK11 allele with a deletion of exons 4 and 5 and an inversion of exons 6 and 7 segregating with the disease. Sequence anal. of STK11 exons in four unrelated PJ patients identified three nonsense and one acceptor splice-site mutations. All five germline mutations are predicted to disrupt the function of the kinase domain. Thus, germline mutations in STK11, probably in conjunction with acquired genetic defects of the second allele in somatic cells, cause the manifestations of PJ syndrome.
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 42 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:434218 HCAPLUS
DOCUMENT NUMBER: 127:201814
TITLE: Activation of the novel stress-activated protein kinase SAPK4 by cytokines and cellular stresses is mediated by SKK3 (MKK6); comparison of its substrate specificity with that of other SAP kinases
AUTHOR(S): Goedert, Michel; Cuenda, Ana; Craxton, Molly; Jakes, Ross; Cohen, Philip
CORPORATE SOURCE: MRC Laboratory Molecular Biology, Cambridge, CB2 2QH, UK
SOURCE: EMBO Journal (1997), 16(12), 3563-3571
CODEN: EMJODG; ISSN: 0261-4189
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A cDNA was **cloned** that encodes **human** stress-activated protein **kinase**-4 (SAPK4), a novel MAP kinase family member whose amino acid sequence is .apprx.60% identical to that of the other three SAP kinases which contain a TGY motif in their activation domain. The mRNA encoding SAPK4 was found to be widely distributed in human tissues. When **expressed** in KB cells, SAPK4 was activated in response to cellular stresses and pro-inflammatory cytokines, in a manner similar to other SAPKs. SAPK4 was activated in vitro by SKK3 (also called MKK6) or when co-transfected with SKK3 into COS cells. SKK3 was the only activator of SAPK4 that was induced when KB cells were exposed to a cellular stress or stimulated with interleukin-1. These findings indicate that SKK3 mediates the activation of SAPK4. The substrate specificity of SAPK4 in vitro was similar to that of SAPK3. Both enzymes phosphorylated the transcription factors ATF2, Elk-1 and SAP-1 at similar rates, but were far less

effective than SAPK2a (also called RK/p38) or SAPK2b (also called p38β) in activating MAPKAP kinase-2 and MAPKAP kinase-3. Unlike SAPK1 (also called JNK), SAPK3 and SAPK4 did not phosphorylate the activation domain of c-Jun. Unlike SAPK2a and SPAK2b, SAPK4 and SAPK3 were not inhibited by the drugs SB 203580 and SB 202190. Our results suggest that cellular functions previously attributed to SAPK1 and/or SAPK2 may be mediated by SAPK3 or SAPK4.

L9 ANSWER 43 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:24625 HCAPLUS
DOCUMENT NUMBER: 128:227662
TITLE: Activation of the novel MAP kinase homolog SAPK4 by cytokines and cellular stresses is mediated by SKK3 (MKK6)
AUTHOR(S): Cuenda, Ana; Goedert, Michel; Craxton, Molly; Jakes, Ross; Cohen, Philip
CORPORATE SOURCE: MRC Protein Phosphorylation Unit, Department of Biochemistry, University of Dundee, Dundee, DD1 4HN, UK
SOURCE: Biochemical Society Transactions (1997), 25(4), S569
CODEN: BCSTB5; ISSN: 0300-5127
PUBLISHER: Portland Press Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A cDNA was **cloned** that encodes **human** stress-activated protein **kinase**-4 (SAPK4), a novel MAP kinase family member whose amino acid sequence is ≈60% identical to that of the other three SAP kinases which contain a TGY motif in their activation domain. The mRNA encoding SAPK4 was found to be widely distributed in human tissues. When **expressed** in KB cells, SAPK4 was activated in response to cellular stresses and pro-inflammatory cytokines, in a manner similar to other SAPKs. SAPK4 was activated in vitro by SKK3 (also called MKK6) or when co-transfected with SKK3 into COS cells. SKK3 was the only activator of SAPK4 that was induced when KB cells were exposed to a cellular stress or stimulated with interleukin-1. These findings indicate that SKK3 mediates the activation of SAPK4. The substrate specificity of SAPK4 in vitro was similar to that of SAPK3. Both enzymes phosphorylated the transcription factors ATF2, Elk-1 and SAP-1 at similar rates, but were far less effective than SAPK2a (also called RK/p38) or SAPK2b (also called p38β) in activating MAPKAP kinase-2 and MAPKAP kinase-3. Unlike SAPK1 (also called JNK), SAPK3 and SAPK4 did not phosphorylate the activation domain of c-Jun. Unlike SAPK2a and SPAK2b, SAPK4 and SAPK3 were not inhibited by the drugs SB 203580 and SB 202190. Our results suggest that cellular functions previously attributed to SAPK1 and/or SAPK2 may be mediated by SAPK3 or SAPK4.
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 44 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:390815 HCAPLUS
DOCUMENT NUMBER: 127:118828
TITLE: Identification of four novel **human** phosphoinositide 3-**kinases** defines a multi-isoform subfamily
AUTHOR(S): Ho, Liza K. F.; Liu, Dongxu; Rozycka, Magdalena; Brown, Richard A.; Fry, Michael J.
CORPORATE SOURCE: Signal Transduction Team, Section of Cell Biology and Experimental Pathology, Institute of Cancer Research, Haddow Laboratories, Sutton, SM2 5NG, UK
SOURCE: Biochemical and Biophysical Research Communications (1997), 235(1), 130-137
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Academic
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Phosphoinositide (PI) 3-kinases have critical roles in diverse cellular signaling processes and in protein trafficking. This suggests that like other intracellular signaling mols., e.g., phospholipase C and protein kinase C, there might be a large family of PI 3-kinase isoforms with the individual members having discrete signaling roles. Reverse transcription-polymerase chain reaction methods, using degenerate oligonucleotide primers against the lipid kinase consensus region, revealed eight sequences from human cDNA containing a high degree of identity to the family of PI 3-kinases. The sequences obtained included the previously described p110α, p110β, and p110γ isoforms and HsVps34. Addnl., we have identified four novel sequences which are related to PI 3-kinases. Three of the novel sequences appear to form a distinct sub-family of PI 3-kinases. We report the **expression** of these novel PI 3-kinases in human tissues and in cells derived from normal breast.

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 45 OF 49 MEDLINE on STN DUPLICATE 8

ACCESSION NUMBER: 96365388 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8769565
TITLE: Cell-specific **expression** of the ZPK gene in adult mouse tissues.
AUTHOR: Blouin R; Beaudoin J; Bergeron P; Nadeau A; Grondin G
CORPORATE SOURCE: Departement de Biologie, Faculte des Sciences, Universite de Sherbrooke, Quebec, Canada.
SOURCE: DNA and cell biology, (1996 Aug) 15 (8) 631-42. Journal code: 9004522. ISSN: 1044-5498.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-U23789
ENTRY MONTH: 199610
ENTRY DATE: Entered STN: 19961022
Last Updated on STN: 20020420
Entered Medline: 19961008

AB ZPK is a recently identified **human** putative protein **kinase** gene that encodes an unusual serine/threonine kinase containing two potential leucine zipper motifs similar to those found in transcription factors as well as in members of the newly discovered mixed-lineage family of protein kinases. To study the normal biological function of ZPK, we have isolated a mouse ZPK cDNA and examined the pattern of ZPK mRNA **expression** in adult mouse tissues by Northern blot and in situ hybridization analyses. The predicted open reading frame of this cDNA encodes an 888-amino-acid protein that shares 95% overall identity with its human counterpart. By Northern blot analysis, we detected **expression** of ZPK mRNA in the brain of adult mice, but not in any other tissue tested. In situ hybridization analysis of mouse brain sections revealed specific association of ZPK mRNA with neuronal cell populations, primarily in the hippocampus, the cerebral cortex, and the Purkinje cell layer of the cerebellum. Interestingly, a remarkable pattern of cell-type-specific **expression** was also found in the epithelial compartment of various organ systems, including stomach, **small intestine**, liver, and pancreas, as well as in the seminiferous tubules of mature **testes**. Taken together, these observations suggest that ZPK could play a role in development, function, and maintenance of a variety of specialized cells.

L9 ANSWER 46 OF 49 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1997:97568 BIOSIS

DOCUMENT NUMBER: PREV199799396771
TITLE: Isolation and characterization of a cDNA encoding a **human** novel serine/threonine **kinase**, Aik.
AUTHOR(S): Kimura, M. [Reprint author]; Kotani, K.; Nogami, M.; Eki, T.; Hattori, T.; Okumura, K.; Nagata, Y.; Yoshioka, T.; Sumi, N.; Taguchi, H.; Hanaoka, F.; Todokoro, K.; Okano, Y.
CORPORATE SOURCE: Dep. Mol. Pathobiochem., Gifu Univ. Sch. Med., Gifu, Japan
SOURCE: Molecular Biology of the Cell, (1996) Vol. 7, No. SUPPL., pp. 562A.
Meeting Info.: Annual Meeting of the 6th International Congress on Cell Biology and the 36th American Society for Cell Biology. San Francisco, California, USA. December 7-11, 1996.
CODEN: MBCEEV. ISSN: 1059-1524.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Mar 1997
Last Updated on STN: 2 Apr 1997

L9 ANSWER 47 OF 49 MEDLINE on STN
ACCESSION NUMBER: 96330334 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8760296
TITLE: The apical membranes of maturing gut columnar epithelial cells contain the enzymatically active form of a newly identified fyn-related tyrosine kinase.
AUTHOR: Sunitha I; Avigan M I
CORPORATE SOURCE: Department of Pathology, Georgetown University School of Medicine, DC 20007, USA.
CONTRACT NUMBER: CA 54818 (NCI)
SOURCE: Oncogene, (1996 Aug 1) 13 (3) 547-59.
Journal code: 8711562. ISSN: 0950-9232.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-U09583
ENTRY MONTH: 199609
ENTRY DATE: Entered STN: 19961008
Last Updated on STN: 19961008
Entered Medline: 19960920

AB Recently, we isolated a new src family member from a rat small intestinal cDNA library which by RNase protection analysis is selectively **expressed** in the columnar epithelium of gut. Complete nucleotide sequencing of the gastrointestinal associated tyrosine kinase (gtk) has revealed that it is a rat homologue of frk/rak-a fyn related **human** tyrosine **kinase**. Unlike frk/rak, gtk is myristylated, in vivo. Furthermore, by immunohistochemical analysis, the kinase is concentrated in the brush border membranes of epithelial cells, throughout the maturation axis of the adult **small intestine**. In vitro analysis revealed that gtk kinase activity is present in intestinal cells throughout their maturation, suggesting that the enzyme might influence signal transduction pathways in both mitotic and post-mitotic states. Gtk is **expressed** in all regions of the gastrointestinal tract which contain columnar epithelium, but is absent in the stratified epithelium of the esophagus. Moreover, during gestation, the kinase dramatically appears at high levels in plasma membranes, at the time of transition of gut cells from an undifferentiated to a simple columnar phenotype. After solubilization of cellular membranes with Triton X-100, sucrose gradient analysis of gtk revealed that it partitions differently than c-yes, demonstrating that the brush border src kinases associate with different components of the plasma membranes. These findings suggest that gtk plays a specialized role in the growth/differentiation of gut columnar

epithelial cells.

L9 ANSWER 48 OF 49 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:543568 HCAPLUS
DOCUMENT NUMBER: 122:285539
TITLE: A serine/threonine protein kinase that phosphorylates the N-terminal activation domain of the c-jun protein
INVENTOR(S): Karin, Michael; Davis, Roger; Hibi, Masahiko; Lin, Anning; Derijard, Benoit
PATENT ASSIGNEE(S): University of California, USA; University of Massachusetts
SOURCE: PCT Int. Appl., 142 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9503323	A1	19950202	WO 1994-US8119	19940718
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5534426	A	19960709	US 1993-94533	19930719
US 6514745	B1	20030204	US 1994-220602	19940325
AU 9473380	A1	19950220	AU 1994-73380	19940718
AU 700137	B2	19981224		
EP 726908	A1	19960821	EP 1994-923544	19940718
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 09507384	T2	19970729	JP 1995-505262	19940718
JP 2925740	B2	19990728		
CA 2166981	C	20001107	CA 1994-2166981	19940718

PRIORITY APPLN. INFO.:
US 1993-94533 A 19930719
US 1994-220602 A 19940325
WO 1994-US8119 W 19940718

AB An isolated 46 kDa (by reducing SDS-PAGE) protein (JNK) with a serine/threonine kinase activity that phosphorylates the c-Jun N-terminal activation domain and methods of detecting the protein are described. CDNAs encoding the protein are also described. JNK phosphorylates c-Jun N-terminal activation domain which affects gene **expression** from AP-1 sites. Proteins binding c-jun were identified by affinity chromatog. against immobilized c-jun and a c-jun kinase activity was detected and characterized. The binding of the kinase to c-jun was strong with most of the complex stable to NaCl 2M. The roles of the protein in c-jun activation, its role in the interaction of c-jun and c-Ha-ras proteins and in T-cell activation are studied.

L9 ANSWER 49 OF 49 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 9
ACCESSION NUMBER: 1989-04307 BIOTECHDS
TITLE: **Expression** of L- and M-type pyruvate-kinase in human tissues;
DNA probe construction
AUTHOR: Tsutsumi H; Tani K; Fujii H; Miwa S
LOCATION: Department of Internal Medicine, Institute of Medical Science, University of Tokyo, 4-6-1, Shirokanedai, Minato-ku, Tokyo 108, Japan.
SOURCE: Genomics; (1988) 2, 1, 86-89
CODEN: GNMCEP
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Pyruvate-kinase (EC-2.7.1.40) has 4 isozymes (L, R, M1, M2) encoded by 2 genes for L and M. Differential splicing produces L-type and R-type pyruvate-kinase mRNA and M1-type and M2-type pyruvate-kinase mRNA from the L gene and the M gene, respectively. The DNA sequences of the 3'-noncoding region were identical between the L-type and the R-type pyruvate-kinase, and between the M1-type and M2-type pyruvate-kinase. 3'-Noncoding sequences for human L-type and M2-type pyruvate-kinase cDNA were isolated for construction of L-type and M-type pyruvate-kinase specific DNA probes. Using these probes, Northern blot hybridization analysis of RNA samples extracted from human tissues was carried out. Northern blot analysis showed that both **kidney** and liver had MRNAs hybridizing with both the L-type and M-type DNA probes. **Small intestine**, skeletal muscle, brain, **testis** , and lung mRNAs hybridized only with the M-type DNA probe. The DNA probes should be useful for the detection of types of pyruvate-kinase isozymes **expressed** in small amounts, which are very difficult to detect by the conventional pyruvate-kinase PAGE method. (27 ref)

```
=> d his

     (FILE 'HOME' ENTERED AT 13:58:23 ON 19 MAY 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS,
     LIFESCI' ENTERED AT 13:58:50 ON 19 MAY 2005
L1      1317150 S KINASE?
L2        21830 S HUMAN (3W) L1
L3      7074887 S CLON? OR EXPRESS? OR RECOMBINANT
L4        10620 S L2 AND L3
L5      3708837 S TESTIS OR EMBRYO? OR ADENOCARCINOMA OR KIDNEY OR (LYMPH (A)NO
L6         1661 S L4 AND L5
L7       290963 S OSTEOSARCOMA OR (SMALL (A)INTESTINE)
L8           70 S L6 AND L7
L9           49 DUP REM L8 (21 DUPLICATES REMOVED)

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E1            2     YU WYATT/AU
E2            1     YU WZ/AU
E3         2326 --> YU X/AU
E4            1     YU X */AU
E5           21     YU X A/AU
E6            1     YU X A D/AU
E7          245     YU X B/AU
E8          202     YU X C/AU
E9            7     YU X CHRISTOPHER/AU
E10         146     YU X D/AU
E11           2     YU X D W/AU
E12           5     YU X E/AU

=> s e3
L10        2326 "YU X"/AU

=> e miranda m/au
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E2            4     MIRANDA LUIZAGA JORGE/AU
E3         1174 --> MIRANDA M/AU
E4          600     MIRANDA M A/AU
E5            1     MIRANDA M A */AU
E6           16     MIRANDA M A C/AU
E7           23     MIRANDA M A C D/AU
E8            1     MIRANDA M A L/AU
E9            1     MIRANDA M A P D/AU
E10          18     MIRANDA M A R/AU
E11           3     MIRANDA M A R B/AU
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E12          3     MIRANDA M ADELAIDE/AU

=> s e3
L11       1174 "MIRANDA M"/AU

=> e friddle c j/au
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E2          25     FRIDDLE C/AU
E3          55 --> FRIDDLE C J/AU
E4          11     FRIDDLE CARL/AU
E5          57     FRIDDLE CARL J/AU
E6          46     FRIDDLE CARL JOHAN/AU
E7           2     FRIDDLE F E/AU
E8           2     FRIDDLE H/AU
E9           1     FRIDDLE J/AU
E10          2     FRIDDLE J D/AU
E11          1     FRIDDLE JOHN D/AU
E12          1     FRIDDLE JR W D/AU

=> s e3-e6
L12        169 ("FRIDDLE C J"/AU OR "FRIDDLE CARL"/AU OR "FRIDDLE CARL J"/AU
               OR "FRIDDLE CARL JOHAN"/AU)

=> s l10 or l11 or l12
L13       3657 L10 OR L11 OR L12

=> d his

     (FILE 'HOME' ENTERED AT 13:58:23 ON 19 MAY 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS,
     LIFESCI' ENTERED AT 13:58:50 ON 19 MAY 2005
L1      1317150 S KINASE?
L2        21830 S HUMAN (3W) L1
L3      7074887 S CLON? OR EXPRESS? OR RECOMBINANT
L4        10620 S L2 AND L3
L5      3708837 S TESTIS OR EMBRYO? OR ADENOCARCINOMA OR KIDNEY OR (LYMPH (A)NO
L6         1661 S L4 AND L5
L7       290963 S OSTEOSARCOMA OR (SMALL (A)INTESTINE)
L8           70 S L6 AND L7
L9           49 DUP REM L8 (21 DUPLICATES REMOVED)
                E YU X/AU
L10        2326 S E3
                E MIRANDA M/AU
L11        1174 S E3
                E FRIDDLE C J/AU
L12         169 S E3-E6
L13        3657 S L10 OR L11 OR L12

=> s l4 and l13
L14          74 L4 AND L13

=> dup rem l14
PROCESSING COMPLETED FOR L14
L15          17 DUP REM L14 (57 DUPLICATES REMOVED)

=> d 1-17 ibib ab

L15   ANSWER 1 OF 17  BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
      DUPLICATE 1
ACCESSION NUMBER: 2005-05163  BIOTECHDS
TITLE:            New isolated novel human kinase (NHK)
                  nucleic acid and polypeptide, useful for diagnosing, drug
                  screening, clinical trial monitoring, or treating diseases
```

and disorders;
recombinant enzyme protein production and antagonist and agonist for use in for gene therapy
AUTHOR: HU Y; WILGANOWSKI N L; **FRIDDLE C J**; WALKE D W
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: US 6841377 11 Jan 2005
APPLICATION INFO: US 2002-171374 13 Jun 2002
PRIORITY INFO: US 2002-171374 13 Jun 2002; US 2001-297856 13 Jun 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2005-072303 [08]
AB DERWENT ABSTRACT:
NOVELTY - An isolated nucleic acid molecule (I) comprises a nucleotide sequence that encodes a sequence comprising 359 amino acids (SEQ ID NO. 2), or hybridizes under stringent conditions to the nucleotide sequence comprising 1080 bp (SEQ ID NO. 1) or its complement, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) a **recombinant expression** vector comprising an isolated nucleic acid molecule comprising SEQ ID NO. 1; and (2) a host cell comprising the vector of (1).
WIDER DISCLOSURE - Also disclosed as new are: (1) agonists and antagonists of NHK; and (2) identifying compounds that modulate NHK **expression** and/or NHK activity.
BIOTECHNOLOGY - Preferred **Expression** Vector: In the **recombinant expression** vector, the isolated nucleic acid molecule encodes the amino acid sequence of SEQ ID NO. 2. Preferred Host Cell: The host cell is prokaryotic or eukaryotic. Preferably, the cell is a yeast cell, an insect cell, an animal cell, or a mammalian cell.
USE - The nucleic acid and polypeptide sequences are useful for the identification of coding sequence and mapping a unique gene to a particular chromosome. They can also be used for diagnosis, drug screening, clinical trial monitoring, treatment of diseases and disorders, and in cosmetic or nutriceutical applications.
EXAMPLE - No example given. (14 pages)

L15 ANSWER 2 OF 17 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 2
ACCESSION NUMBER: 2004-24720 BIOTECHDS
TITLE: New nucleic acids encoding **human kinase** proteins, useful for identifying protein coding sequences and mapping a unique gene to a particular chromosome, or as additional DNA markers for restriction fragment length polymorphism analysis;
recombinant protein production via plasmid **expression** in host cell for use in chromosome mapping and forensics
AUTHOR: WALKE D W; SCOVILLE J; **FRIDDLE C J**
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: US 6797510 28 Sep 2004
APPLICATION INFO: US 2002-196927 20 May 2002
PRIORITY INFO: US 2002-196927 20 May 2002; US 2001-293248 24 May 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2004-687770 [67]
AB DERWENT ABSTRACT:
NOVELTY - A new isolated nucleic acid molecule comprises a sequence of 1449 bp (SEQ ID NO: 3) given in the specification, or encodes a 482-amino acid sequence (SEQ ID NO: 4) also given in the specification.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) a **recombinant expression** vector comprising a nucleic acid encoding SEQ ID NO: 4; and (2) a host cell comprising the **recombinant expression** vector.
WIDER DISCLOSURE - Also disclosed are the following: (1) agonists

and antagonists of the novel human proteins (NHPs); (2) antibodies and nucleotide sequences that can be used to inhibit the **expression** of the NHPs; (3) transgenic animals that **express** NHP sequence; and (4) identifying compounds that modulate NHP **expression** and/or activity.

BIOTECHNOLOGY - Preferred Nucleic Acid: The nucleic acid comprised in the **expression** vector comprises SEQ ID NO: 3.

USE - The NHP sequences are useful for identifying protein coding sequences and mapping a unique gene to a particular chromosome, as additional DNA markers for restriction fragment length polymorphism analysis, or in forensic biology, particularly given the presence of nucleotide polymorphisms within the described sequences. (17 pages)

L15 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:739850 HCAPLUS
DOCUMENT NUMBER: 141:238817
TITLE: Protein and cDNA sequences of a novel **human** protein **kinase**
INVENTOR(S): Walke, D. Wade; Scoville, John; **Friddle, Carl Johan**
PATENT ASSIGNEE(S): Lexicon Genetics Incorporated, USA
SOURCE: U.S. Pat. Appl. Publ., 17 pp., Division of U. S. Ser. No. 196,927.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004175749	A1	20040909	US 2004-803278		20040318
US 6861240	B2	20050301			
US 6797510	B1	20040928	US 2002-196927		20020520
PRIORITY APPLN. INFO.:			US 2001-293248P	P	20010524
			US 2002-196927	A3	20020520

AB Novel human polynucleotide and polypeptide sequences are disclosed that can be used in therapeutic, diagnostic, and pharmacogenomic applications.

L15 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:292880 HCAPLUS
DOCUMENT NUMBER: 141:361182
TITLE: Wnk1 kinase deficiency lowers blood pressure in mice: A gene-trap screen to identify potential targets for therapeutic intervention. [Erratum to document cited in CA140:106021]
AUTHOR(S): Zambrowicz, Brian P.; Abuin, Alejandro; Ramirez-Solis, Ramiro; Richter, Lizabeth J.; Piggott, James; BeltrandelRio, Hector; Buxton, Eric C.; Edwards, Joel; Finch, Rick A.; **Friddle, Carl J.**; Gupta, Anupma; Hansen, Gwenn; Hu, Yi; Huang, Wenhu; Jaing, Crystal; Key, Billie Wayne, Jr.; Kipp, Peter; Kohlhauff, Buckley; Ma, Zhi-Qing; Markesich, Diane; Payne, Robert; Potter, David G.; Qian, Ny; Shaw, Joseph; Schrick, Jeff; Shi, Zheng-Zheng; Sparks, Mary Jean; Van Sligtenhorst, Isaac; Vogel, Peter; Walke, Wade; Xu, Nianhua; Zhu, Qichao; Person, Christophe; Sands, Arthur T.
CORPORATE SOURCE: Lexicon Genetics, The Woodlands, TX, 77381, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2004), 101(12), 4332
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal

LANGUAGE: English

AB The software used to generate the original graph depicting historical progression of estimated genome coverage by Omnibank failed to consistently select the earliest Omnibank sequence tag (OST) match to the sentinel gene list. Therefore, the rate of genome coverage is significantly greater in the initial phases of gene trap **clone** collection than that originally presented in the graph for Figure 2B. The corrected graph accurately illustrates an initial high rate of growth in genome coverage that then slows more significantly in the later stages of **clone** collection. The conclusions regarding total genomic coverage achieved by this methodol. as well as other aspects of the work are unchanged. The corrected figure and its legend are given.

L15 ANSWER 5 OF 17 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 3
ACCESSION NUMBER: 2003-16127 BIOTECHDS
TITLE: New nucleic acid molecule encoding a novel human protein (NHP), useful for identifying compounds as therapeutic agents for treating a wide variety of symptoms associated with biological disorders or imbalance;
involving vector-mediated gene transfer and **expression** in host cell for use in gene therapy and drug screening
AUTHOR: TURNER C A; MATHUR B; MATHUR D; **FRIDDLE C J**
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: US 6511840 28 Jan 2003
APPLICATION INFO: US 2001-883134 15 Jun 2001
PRIORITY INFO: US 2001-883134 15 Jun 2001; US 2000-211572 15 Jun 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-391258 [37]

AB DERWENT ABSTRACT:
NOVELTY - An isolated nucleic acid molecule comprising a sequence of 2925 base pairs (bp) (I), encoding a sequence of 974 amino acids (aa), all sequences fully defined in the specification, or hybridizing under stringent conditions with washing in 0.1 x SSC/0.1 x SDS at 68degreesC to (I) or its complement, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following: (1) a **recombinant expression** vector comprising the isolated nucleic acid molecule; and (2) a host cell comprising the **recombinant expression** vector.

WIDER DISCLOSURE - Also disclosed includes: (1) a **human kinase** protein encoded by the nucleic acid molecule; (2) antagonists or agonists of the protein; (3) transgenic animals that **express** a novel human protein (NHP) transgene, or knock-outs; and (4) processes for identifying compounds that modulate the NHP **expression** and/or activity.

ACTIVITY - None given. No biological data given.

MECHANISM OF ACTION - Gene therapy.

USE - The nucleic acid molecule and protein are useful for identifying compounds as therapeutic agents for treating a wide variety of symptoms associated with biological disorders or imbalance. They are also useful for diagnosis, drug screening, clinical trial monitoring, treating physiological disorders or diseases, and in cosmetic or nutriceutical applications. (27 pages)

L15 ANSWER 6 OF 17 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2004-04631 BIOTECHDS
TITLE: New **human kinase** nucleic acid molecules, useful for diagnosis, drug screening, clinical trial monitoring and treating diseases or disorders associated with biological disorders or imbalances;
involving vector-mediated gene transfer and **expression** in host cell for use in gene therapy

AUTHOR: HU Y; NEPOMNICHY B; GERHARDT B; WALKE D W; **FRIDDLE C J**
PATENT ASSIGNEE: HU Y; NEPOMNICHY B; GERHARDT B; WALKE D W; FRIDDLE C J
PATENT INFO: US 2003175949 18 Sep 2003
APPLICATION INFO: US 2003-430797 6 May 2003
PRIORITY INFO: US 2003-430797 6 May 2003; US 2000-243893 27 Oct 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-898545 [82]
AB DERWENT ABSTRACT:
NOVELTY - An isolated nucleic acid molecule comprising a sequence of 2829 (S1) or 927 (S2) bp, fully defined in the specification, is new.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for an isolated nucleic acid **expression** vector comprising a promoter element operatively positioned to **express** a transcript encoding a sequence of 942 or 308 amino acids, fully defined in the specification.
BIOTECHNOLOGY - Preferred Molecule: The nucleic acid molecule encodes a sequence of 942 or 308 amino acids, fully defined in the specification. It hybridizes under stringent conditions to S1 or its complement.
ACTIVITY - None given.
MECHANISM OF ACTION - Gene therapy.
USE - The nucleic acid molecules are useful for diagnosis, drug screening, clinical trial monitoring and treating diseases or disorders associated with biological disorders or imbalances. (17 pages)

L15 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2004:101660 HCAPLUS
DOCUMENT NUMBER: 140:123408
TITLE: Wnk1 kinase deficiency lowers blood pressure in mice: A gene-trap screen to identify potential targets for therapeutic intervention
AUTHOR(S): Zambrowicz, Brian P.; Abuin, Alejandro; Ramirez-Solis, Ramiro; Richter, Lizabeth J.; Piggott, James; Beltran del Rio, Hector; Buxton, Eric C.; Edwards, Joel; Finch, Rick A.; **Friddle, Carl J.**; Gupta, Anupma; Hansen, Gwenn; Hu, Yi; Huang, Wenhu; Jaing, Crystal; Key, Billie Wayne, Jr.; Kipp, Peter; Kohlhauff, Buckley; Ma, Zhi-qing; Markesich, Diane; Payne, Robert; Potter, David G.; Qian, Ny; Shaw, Joseph; Schrick, Jeff; Shi, Zheng-zheng; Sparks, Mary Jean; Van Sligtenhorst, Isaac; Vogel, Peter; Walke, Wade; Xu, Nianhua; Zhu, Qichao; Person, Christophe; Sands, Arthur T.
CORPORATE SOURCE: Lexicon Genetics, The Woodlands, TX, 77381, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2003), 100(24), 14109-14114
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The availability of both the mouse and human genome sequences allows for the systematic discovery of human gene function through the use of the mouse as a model system. To accelerate the genetic determination of gene function, a sequence-tagged gene-trap library of >270,000 mouse embryonic stem cell **clones** (GenBank/EMBL/DDBJ accession nos. CG472819-CG671551) was developed representing mutations in .apprx.60% of mammalian genes. Through the generation and phenotypic anal. of knockout mice from this resource, a functional screen was undertaken to identify genes regulating physiol. parameters such as blood pressure. As part of this screen, mice deficient for the Wnk1 kinase gene were generated and analyzed. Genetic studies in humans have shown that large intronic deletions in WNK1 lead to its overexpression and are responsible for pseudohypoaldosteronism type II, an autosomal dominant disorder

characterized by hypertension, increased renal salt reabsorption, and impaired K+ and H+ excretion. Consistent with the human genetic studies, Wnk1 heterozygous mice displayed a significant decrease in blood pressure. Mice homozygous for the Wnk1 mutation died during embryonic development before day 13 of gestation. These results demonstrate that Wnk1 is a regulator of blood pressure critical for development and illustrate the utility of a functional screen driven by a sequence-based mutagenesis approach. [This abstract record is one of fifty records for this document necessitated by the large number of index entries required to fully index the
document and publication system constraints.].

L15 ANSWER 8 OF 17 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 5
ACCESSION NUMBER: 2003-06803 BIOTECHDS
TITLE: Novel human proteins that shares structural similarity with animal kinases, useful for therapeutic, diagnostic and pharmacogenomic applications;
recombinant enzyme protein production and sense and antisense sequence for use in gene therapy
AUTHOR: **YU X; MIRANDA M; FRIDDLE C J**
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: WO 2002081671 17 Oct 2002
APPLICATION INFO: WO 2002-US10787 4 Apr 2002
PRIORITY INFO: US 2001-282031 6 Apr 2001; US 2001-282031 6 Apr 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-058539 [05]
AB DERWENT ABSTRACT:
NOVELTY - An isolated novel human protein (NHP) (I) having the kinase activity of a protein (Ia) comprising a 385 residue amino acid sequence (S1), given in the specification, and encoded by a nucleotide sequence that hybridizes to a 1158 nucleotide sequence (S2), given in the specification under highly stringent conditions, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an isolated nucleic acid molecule (II) comprising S2 or its complement, and encoding S1.

WIDER DISCLOSURE - (1) agonists and antagonists of NHP, or other compounds that modulate the **expression** or activity of the protein; (2) host cell **expression** systems comprising (II); (3) fusion proteins comprising (I) that direct NHP to a target organ and/or facilitate transport across the membrane into the cytosol; (4) antibodies or anti-idiotypic antibodies specific to (I); (5) genetically engineered animals that either lack or overexpress (I); (6) antisense or ribozyme molecules, and open reading frames of regulatory sequence replacement constructs; (7) process for identifying compounds that modulate i.e. act as agonists or antagonists of NHP **expression** and/or NHP activity that use purified preparations of the NHP and/or NHP products, or cells **expressing** the above; and (8) proteins that are functionally equivalent to the NHP products encoded by (II).

ACTIVITY - None given.

MECHANISM OF ACTION - None given.

USE - (I) and (II) are useful for diagnosis, drug screening, clinical trial monitoring, the treatment of diseases and disorders, and cosmetic or nutriceutical applications. (II) is useful for the identification of protein coding sequences, and mapping a unique gene to a particular chromosome. (II) is also useful as an additional DNA marker for restriction fragment length polymorphism (RFLP) analysis and in forensic biology. (II) is useful in conjunction with the polymerase chain reaction (PCR) to screen libraries, to isolate **clones** and to prepare **cloning** and sequencing templates. (I) or (II) are useful for the detection of mutant NHPs or inappropriately **expressed** NHPs for the diagnosis of disease, and for screening for drugs effective in the treatment of the symptomatic or phenotypic

manifestations of perturbing the normal function of NHP in the body. NHP products are useful as therapeutics. NHP products are also useful for the generation of antibodies, as reagents in diagnostic assays, for the identification of other cellular gene products related to NHP, and as reagents in assays for screening compounds that can be used as pharmaceutical reagents useful in the therapeutic treatment of mental, biological or medical disorders and diseases.

EXAMPLE - None given. (39 pages)

L15 ANSWER 9 OF 17 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 6
ACCESSION NUMBER: 2003-06802 BIOTECHDS
TITLE: New **human kinase** proteins useful for diagnosis, drug screening, clinical trial monitoring, treatment of disorders and diseases, and cosmetic and nutritional applications;
recombinant enzyme protein production and antagonist and agonist for use in gene therapy
AUTHOR: TURNER C A; MATHUR B; **FRIDDLE C J**
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: WO 2002081670 17 Oct 2002
APPLICATION INFO: WO 2002-US10786 4 Apr 2002
PRIORITY INFO: US 2001-282036 6 Apr 2001; US 2001-282036 6 Apr 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-058538 [05]
AB DERWENT ABSTRACT:
NOVELTY - An isolated nucleic acid comprising encoding a 778, 762 or 703 residue **human kinase** amino acid sequence, given in the specification (sequences I, II and III respectively), is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an isolated protein having the kinase activity of (I), (II) or (III), and which is encoded by a 237, 2289 or 2112 base pair sequence, given in the specification.

WIDER DISCLOSURE - (1) agonists and antagonists of the proteins; (2) antibodies against the proteins; and (3) transgenic knock out animals.

ACTIVITY - None given

MECHANISM OF ACTION - None given

USE - The invention is useful for diagnosis, drug screening, clinical trial monitoring, treatment of disorders and diseases, and cosmetic and nutritional applications (disclosed). (24 pages)

L15 ANSWER 10 OF 17 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 7
ACCESSION NUMBER: 2003-00776 BIOTECHDS
TITLE: Novel polynucleotides encoding human proteins that are structurally related to animal kinases, useful for drug screening, diagnosis and in gene therapy of biological disorders;
vector-mediated **recombinant** protein gene transfer and **expression** in host cell for use in drug screening and nootropic disease and mental disorder diagnosis and gene therapy
AUTHOR: TURNER C A; MATHUR B; **FRIDDLE C J**
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: WO 2002048333 20 Jun 2002
APPLICATION INFO: WO 2001-US49068 12 Dec 2001
PRIORITY INFO: US 2001-289422 8 May 2001; US 2000-255103 12 Dec 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-583505 [62]
AB DERWENT ABSTRACT:
NOVELTY - Isolated nucleic acid molecule (I) comprising a nucleotide sequence encoding a novel human protein (NHP) of 870, 864, 764, 751, 654,

648, 548, 535, 895, 889, 789, 776, 982, 976, 876, 863, 957, 951, 851 or 838 amino acids given in specification, that share structural similarity with animal kinases, including serine-threonine kinases, casein kinases, calcium/calmodulin-dependent protein kinases and mitogen activated kinases, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an isolated nucleic acid molecule comprising a nucleotide sequence that encodes the sequence of 870 amino acids and hybridizes under stringent conditions to the nucleotide sequence of 2613 base pairs given in the specification or its complement.

WIDER DISCLOSURE - Disclosed are: (1) novel human membrane proteins (NHPs) encoded by (I), that share structural similarity with mammalian ion channel proteins and particularly voltage-gated potassium channel proteins; (2) host cell **expressing** systems comprising (I); (3) antibodies to NHP and anti-idiotypic antibodies; (4) fusion proteins comprising NHP; (5) genetically engineered animals that either lack or over **express** (I); (6) antagonists and agonists of NHP; (7) compounds that modulate the **expression** or activity NHP; (8) identifying compounds that modulate, **expression** and/or activity of NHP; (9) degenerate nucleic acid variants of (I); (10) vectors that contain (I); and (11) nucleotide sequences (e.g. antisense and ribozyme molecules) that inhibit **expression** of (I).

BIOTECHNOLOGY - Preferred Protein: NHPs are novel proteins **expressed** in human cell lines and human fetal brain, brain, pituitary, cerebellum, and fetal lung, kidney, and embryo cells.

ACTIVITY - Nootropic.

MECHANISM OF ACTION - Gene therapy. No suitable data is given.

USE - NHP oligonucleotides are useful as hybridization probes for screening libraries and assessing gene **expression** patterns. NHP sequences are useful to identify mutations associated with a particular disease and also as a diagnostic or prognostic assay, and also in the molecular mutagenesis/evolution of proteins that are at least partially encoded by the NHP sequences. Sequences derived from regions adjacent to the intron/exon boundaries of NHP gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NHP sequences are utilized in microarrays or other assay formats, to screen collections of genetic material from patients who have a particular medical condition. NHP nucleotide sequences are useful for drug screening effective in the treatment of symptomatic or phenotypic manifestations of perturbing the normal function of NHP in the body, and nucleotide constructs encoding NHP products are used to genetically engineer host cells to **express** NHP products in vivo. These genetically engineered cells function as bioreactors in the body delivering a continuous supply of a NHP, a NHP peptide, or a NHP fusion protein to the body. Nucleotide construct encoding NHP products are also useful in gene therapy for modulating NHP **expression** and to produce genetically engineered host cells to **express** NHP products in vivo. NHP nucleotide sequences may also be used as part of ribozyme and/or triple helix sequences that are useful for NHP gene regulation. The encoded NHP polypeptides are useful for generating antibodies, as reagents in diagnostic assays, for identifying other cellular gene products related to NHP and as reagents in assays for screening for compounds that are useful in the treatment of mental, biological or medical disorders and diseases.

EXAMPLE - No suitable example given.(93 pages)

L15 ANSWER 11 OF 17 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 8

ACCESSION NUMBER: 2002-19616 BIOTECHDS

TITLE: Novel nucleic acid molecule encoding a **human kinase**, useful in therapeutic, diagnostic and pharmacogenomic applications, as DNA markers for restriction fragment length polymorphism analysis and in forensic biology

;
recombinant enzyme protein and agonist and antagonist use in disease therapy and gene therapy

AUTHOR: WALKE D W; MARICAR M; **YU X**; **FRIDDLE C J**
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: WO 2002046428 13 Jun 2002
APPLICATION INFO: WO 2000-US48533 7 Dec 2000
PRIORITY INFO: US 2000-251941 7 Dec 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-527921 [56]

AB DERWENT ABSTRACT:

NOVELTY - An isolated nucleic acid molecule (I) comprising a nucleotide sequence encoding a sequence (S1) of 424 amino acids fully defined in the specification, and hybridizes under stringent conditions to a sequence (S2) of 1275 nucleotides fully defined in the specification, or its complement, is new.

WIDER DISCLOSURE - Also disclosed are: (1) a host cell **expression** system **expressing** (I); (2) a protein encoded by (I); (3) a fusion protein comprising the protein encoded by (I); (4) antibodies or anti-idiotypic antibodies to the protein encoded by (I); (5) a genetically engineered animal that either lacks or overexpresses (I); (6) antagonists or agonists of the protein encoded by (I); (7) a compound that modulates the **expression** or activity of the protein encoded by (I); (8) a pharmaceutical formulation and method for treating biological disorders; (9) a protein that is functionally equivalent to the protein encoded by (I); and (10) a DNA vector that contains the **human kinase** coding sequences and/or their complements.

USE - (I) is useful in therapeutic, diagnostic and pharmacogenomic applications, and for identifying compounds that modulate, i.e., act as agonists or antagonists of the gene **expression** or gene product activity. (I) is useful for the identification of protein coding sequences, for mapping a unique gene to a particular chromosome, as additional DNA markers for restriction fragment length polymorphism (RFLP) analysis and in forensic biology, for screening libraries, isolating **clones**, preparing, **cloning** and sequencing templates, as hybridization probes, in microarrays or other assay formats, to screen collections of genetic material from patients who have a particular medical condition, to identify mutations associated with a particular disease and also as a diagnostic or prognostic assay. (I) is useful for the detection of mutant human proteins, or inappropriately **expressed** proteins for the diagnosis of disease, for screening for drugs effective in the treatment of the symptomatic or phenotypic manifestations of perturbing the normal function of the protein in the body, for generation of antibodies, for identification of other cellular gene products related to the protein, and as reagents in assays for screening for compounds that can be used as pharmaceutical agents in the therapeutic treatment of mental, biological or medical disorders and diseases.

EXAMPLE - None given. (37 pages)

L15 ANSWER 12 OF 17 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 9

ACCESSION NUMBER: 2002-20038 BIOTECHDS
TITLE: Novel **human kinase** polynucleotide useful in therapeutic, diagnostic and pharmacogenomic applications; **recombinant** enzyme protein production via plasmid **expression** in host cell use in disease therapy and gene therapy
AUTHOR: **FRIDDLE C J**; HILBUN E; MATHUR B; TURNER C A
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: WO 2002042438 30 May 2002
APPLICATION INFO: WO 2000-US43825 20 Nov 2000

PRIORITY INFO: US 2000-252011 20 Nov 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-566563 [60]
AB DERWENT ABSTRACT:
NOVELTY - A **human kinase** polynucleotide (I) selected from a polynucleotide comprising a 2079 base pair sequence (S1) that encodes a 692 or 817 amino acid sequence (S2), a polynucleotide that hybridizes to a 2454 base pair sequence (S3) or its complement, and a polynucleotide comprising at least 24 contiguous base pairs from S3, where S1, S2 or S3 is fully defined in the specification, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an isolated **expression** vector (II) comprising a promoter element operatively positioned to **express** a transcript encoding the 817 amino acid sequence.

WIDER DISCLOSURE - Also disclosed are: (1) a host cell **expression** system **expressing** (I); (2) a protein encoded by (I); (3) a fusion protein comprising the protein encoded by (I); (4) antibodies or anti-idiotypic antibodies to the protein encoded by (I); (5) a genetically engineered animal that either lacks or over **expresses** (I); (6) antagonists or agonists of the protein encoded by (I); (7) a compound that modulates the **expression** or activity of the protein encoded by (I); (8) a pharmaceutical formulation and method for treating biological disorders; and (9) a protein that is functionally equivalent to the protein encoded by (I).

USE - (I) is useful in therapeutic, diagnostic and pharmacogenomic applications, and for identifying compounds that modulate, i.e., act as agonists or antagonists of the gene **expression** or gene product activity. (I) is useful for the identification of protein coding sequences, for mapping a unique gene to a particular chromosome, as additional DNA markers for restriction fragment length polymorphism (RFLP) analysis and in forensic biology, for screening libraries, isolating **clones**, preparing **cloning** and sequencing templates, as hybridization probes, in microarrays or other assay formats, to screen collections of genetic material from patients who have a particular medical condition, to identify mutations associated with a particular disease and also as a diagnostic or prognostic assay. (I) is useful for the detection of mutant human proteins, or inappropriately **expressed** proteins for the diagnosis of disease, for screening for drugs effective in the treatment of the symptomatic or phenotypic manifestations of perturbing the normal function of the protein in the body, for generation of antibodies, for identification of other cellular gene products related to the protein, and as reagents in assays for screening for compounds that can be used as pharmaceutical agents in the therapeutic treatment of mental, biological or medical disorders and diseases.

EXAMPLE - None given. (43 pages)

L15 ANSWER 13 OF 17 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2003-08154 BIOTECHDS
TITLE: New **human kinase** proteins and polynucleotides, useful for cosmetic and nutriceutical applications, drug screening, clinical trial monitoring, diagnosing or treating diseases associated with biological disorders or imbalances;
vector-mediated gene transfer and **expression** in host cell for **recombinant** protein production and gene therapy
AUTHOR: **YU X**; XIE Q; ABUIN A; WALKE D W
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: WO 2002090517 14 Nov 2002
APPLICATION INFO: WO 2002-US14669 8 May 2002
PRIORITY INFO: US 2001-289727 9 May 2001; US 2001-289727 9 May 2001
DOCUMENT TYPE: Patent

LANGUAGE: English
OTHER SOURCE: WPI: 2003-103514 [09]
AB DERWENT ABSTRACT:
NOVELTY - A substantially isolated protein having the kinase activity of a protein comprising a fully defined sequence of 479 (S2) or 94 (S4) amino acids given in the specification, is new. The protein is encoded by a nucleotide sequence that hybridizes to a sequence of 1440 (S1) or 285 (S3) base pairs (bp) fully defined in the specification, under highly stringent conditions.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an isolated nucleic acid molecule comprising: (a) the sequence of S1 or S3; (b) a nucleotide sequence that encodes the amino acid sequence of S2, and hybridizes under stringent conditions to the nucleotide sequence of S1 or its complement; or (c) a nucleotide sequence encoding the amino acid sequence of S2 or S4.

WIDER DISCLOSURE - Also disclosed are host cell **expression** systems, fusion proteins, polypeptides and peptides, antibodies to the encoded proteins and peptides, genetically engineered animals that either lack or over **express** the polynucleotides, agonists and antagonists of the proteins, and other compounds that modulate the **expression** or activity of the proteins encoded by the polynucleotides.

ACTIVITY - None given.

MECHANISM OF ACTION - Kinase Inhibitor; Kinase Stimulator; Gene Therapy.

USE - The polynucleotides, proteins, antibodies, agonists and antagonists of the proteins are useful for drug screening, clinical trial monitoring, and diagnosing or treating diseases or disorders associated with biological disorders or imbalances. The proteins and polynucleotides are also useful in cosmetic and nutriceutical applications, for identifying protein coding sequences and mapping a unique gene to a particular chromosome. The sequence of the polynucleotides and proteins can also be used as additional DNA markers for restriction fragment length polymorphism analysis, or in forensic biology.

EXAMPLE - No example given. (40 pages)

L15 ANSWER 14 OF 17 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2003-05423 BIOTECHDS
TITLE: New **human kinase** polynucleotides, useful for diagnosis, drug screening, clinical trial monitoring, treating mental, biological or medical disorders and diseases, and for cosmetic or nutriceutical applications; vector-mediated **recombinant** protein gene transfer and **expression** in host cell for use in drug screening, gene therapy and forensics
AUTHOR: **YU X; MIRANDA M**
PATENT ASSIGNEE: LEXICON GENETICS INC
PATENT INFO: WO 2002074932 26 Sep 2002
APPLICATION INFO: WO 2002-US8959 20 Mar 2002
PRIORITY INFO: US 2001-277168 20 Mar 2001; US 2001-277168 20 Mar 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-759892 [82]
AB DERWENT ABSTRACT:
NOVELTY - A new isolated nucleic acid molecule comprises: (a) a sequence of 1368 base pairs fully defined in the specification; (b) a nucleotide sequence encoding a fully defined sequence of 455 amino acids given in the specification; or (c) a sequence that hybridizes under stringent conditions to the sequence of (a) or its complement.

WIDER DISCLOSURE - Also disclosed are: (1) agonists and antagonists of the polypeptides encoded by the polynucleotides; (2) transgenic animals that **express** the polypeptides which are useful for the in vivo study, testing and validation of human drug targets; (3) host cells **expressing** the nucleotides; (4) DNA vectors comprising

the polynucleotides; and (5) antibodies that specifically recognize one or more epitopes of the polypeptides.

BIOTECHNOLOGY - Preparation: The polynucleotides can be synthesized by standard methods, such as the use of an automated DNA synthesizer.

ACTIVITY - Neuroleptic.

MECHANISM OF ACTION - Kinase Inhibitor; Kinase Stimulator; Gene Therapy.

USE - The **human kinase** polynucleotides are useful for diagnosis, drug screening, clinical trial monitoring, treating diseases and disorders, and cosmetic or nutriceutical applications. They are also useful as additional DNA markers for restriction fragment length polymorphism analysis and in forensic biology. The polynucleotides can also be used for generating antibodies, as reagents in diagnostic assays, or as reagents in assays for screening for compounds that can be used as pharmaceutical reagents useful in the therapeutic treatment of mental, biological or medical disorders and diseases.

ADMINISTRATION - No administration routes or dosage details given.

EXAMPLE - No example given. (37 pages)

L15 ANSWER 15 OF 17 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2003-12822 BIOTECHDS
TITLE: New novel human polynucleotides encoding proteins sharing sequence similarity with animal kinases, useful for diagnosing or treating disorders; human **recombinant** protein production and its encoding gene useful for gene therapy and diagnosis
AUTHOR: TURNER C A; MATHUR B; **FRIDDLE C J**
PATENT ASSIGNEE: TURNER C A; MATHUR B; FRIDDLE C J
PATENT INFO: US 2002161213 31 Oct 2002
APPLICATION INFO: US 2001-20079 12 Dec 2001
PRIORITY INFO: US 2001-20079 12 Dec 2001; US 2000-255103 12 Dec 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-288125 [28]
AB DERWENT ABSTRACT:

NOVELTY - An isolated nucleic acid comprising a nucleotide sequence encoding a sequence having 870, 864, 764, 751, 654, 648, 548, 535, 895, 889, 789, 776, 982, 976, 876, 863, 957, 951, 851 or 838 amino acids, is new.

BIOTECHNOLOGY - Preferred Nucleic Acid: The nucleic acid comprises a nucleotide sequence that: (1) encodes the 870- or 757-amino acid sequence; or (2) hybridizes under stringent conditions to the 2613-bp sequence or its complement.

ACTIVITY - None given.

MECHANISM OF ACTION - Gene therapy.

USE - The novel human polynucleotides encoding proteins sharing sequence similarity with animal kinases are useful for diagnosing or treating disorders. (78 pages)

L15 ANSWER 16 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:575249 HCAPLUS
DOCUMENT NUMBER: 137:136141
TITLE: **Human** protein **kinase**, its cDNA and protein sequences, and use thereof
INVENTOR(S): Yu, Xuanchuan; Miranda, Maricar; **Friddle, Carl Johan**
PATENT ASSIGNEE(S): Lexicon Genetics Incorporated, USA
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002059325	A2	20020801	WO 2001-US50497	20011220
WO 2002059325	A3	20030320		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002123622	A1	20020905	US 2001-28946	20011220
US 6734009	B2	20040511		
US 2004209297	A1	20041021	US 2004-791666	20040302
PRIORITY APPLN. INFO.:			US 2000-258335P	P 20001227
			US 2001-28946	A1 20011220

AB The invention provides protein and cDNA sequences for two novel **human** protein **kinases** (2054 and 1958 amino acids resp.), which are obtained by searching human genomic sequence database (Reference GenBank AC016922) in conjunction with cDNAs prepared and isolated from human fetal kidney, testis, and lymph node mRNAs. The novel protein kinase have sequence homol. to Kinase serine/threonine protein kinase as well as Citron kinase from a variety of phyla species. The described genes are mapped to chromosome 12 and a C/G polymorphism is reported for both of them (at nucleotide 5218/6065 resp.). Methods for the preparation of **recombinant** proteins, transgenic animals, and related antibodies are also described. Novel human polynucleotide and polypeptide sequences are disclosed that can be used in therapeutic, diagnostic, and pharmacogenomic applications.

L15 ANSWER 17 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	2002:172058 HCAPLUS
DOCUMENT NUMBER:	136:227966
TITLE:	Protein and cDNA sequences of **human** protein **kinase** sequence homologs and uses thereof in diagnosis, therapy and drug screening
INVENTOR(S):	**Friddle, Carl Johan**; Hilbun, Erin; Nepomnichy, Boris; Hu, Yi
PATENT ASSIGNEE(S):	Lexicon Genetics Incorporated, USA
SOURCE:	PCT Int. Appl., 46 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002018555	A2	20020307	WO 2001-US26776	20010828
WO 2002018555	A3	20030227		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2001085326	A5	20020313	AU 2001-85326	20010828
US 2002147320	A1	20021010	US 2001-940921	20010828
PRIORITY APPLN. INFO.:			US 2000-229280P	P 20000831

WO 2001-US26776 W 20010828

AB This invention provides protein and cDNA sequences for newly identified human proteins, designated NHPs, which shares substantial sequence homol. with animal kinases, and particularly NIMA (never in mitosis A) related kinases, serine/threonine kinases, calcium/calmodulin-dependent kinases, and myosin light chain kinases. While NHP shares sequence homol. with other protein kinases, its primary sequence is unique. **Expression** of NHPs can be detected in, inter alia, human cell lines, and human fetal and adult brain, pituitary, cerebellum, spinal cord, thymus, spleen, lymph node, bone marrow, trachea, lung, kidney, fetal and adult liver, prostate, testis, thyroid, small intestine, heart, uterus, placenta, mammary gland, adipose, esophagus, cervix, rectum, fetal kidney, and fetal lung (SEQID NOS:2 and 4), or human pituitary, kidney, thyroid, skeletal muscle, and heart cells (SEQ ID NOS: 7 and 9). The described sequences were compiled from sequences available in GENBANK, and cDNAs generated from kidney, testis, trachea, esophagus, pituitary, human gene trapped products (SEQ ID NOS: 2 and 4), or bone marrow and skeletal muscle mRNAs. In one embodiment, the invention relates to diagnostic assays for detecting diseases associated with inappropriate NHP activity or levels. Also disclosed are methods for utilizing NHP in drug screening assays and in therapy directed against diseases associated with inappropriate NHP activity or levels.

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(FILE 'HOME' ENTERED AT 13:58:23 ON 19 MAY 2005)

FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS, LIFESCI' ENTERED AT 13:58:50 ON 19 MAY 2005

```
L1      1317150 S KINASE?
L2        21830 S HUMAN (3W) L1
L3      7074887 S CLON? OR EXPRESS? OR RECOMBINANT
L4        10620 S L2 AND L3
L5      3708837 S TESTIS OR EMBRYO? OR ADENOCARCINOMA OR KIDNEY OR (LYMPH (A)NO
L6         1661 S L4 AND L5
L7       290963 S OSTEOSARCOMA OR (SMALL (A)INTESTINE)
L8           70 S L6 AND L7
L9           49 DUP REM L8 (21 DUPLICATES REMOVED)
                E YU X/AU
L10        2326 S E3
                E MIRANDA M/AU
L11        1174 S E3
                E FRIDDLE C J/AU
L12         169 S E3-E6
L13        3657 S L10 OR L11 OR L12
L14          74 S L4 AND L13
L15          17 DUP REM L14 (57 DUPLICATES REMOVED)
```

	L #	Hits	Search Text
1	L1	1	"6734009".pn.
2	L2	59380	kinase$2
3	L3	482982	human
4	L4	19267	l2 same l3
5	L5	732931	clon$3 or express$3 or recombinant
6	L6	11190	l4 same l5
7	L7	99627	testis or embryo$3 or adenocarcinoma or kidney
8	L8	1765	l6 same l7
9	L9	47540	(lymph adj node$2) or osteosarcoma or intestine
10	L10	157	l8 same l9
11	L11	47057	MIRANDA YU FRIDDLE
12	L12	33	l10 and l11
13	L13	2297	l4 and l11
14	L14	1606	l6 and l11
15	L15	684	"NHP"
16	L16	34	l14 and l15

	Document ID	Kind Codes	Source	Issue Date	Pages
1	US 20050089917 A1		US-PGPUB	20050428	229
2	US 20050060101 A1		US-PGPUB	20050317	96
3	US 20050053938 A1		US-PGPUB	20050310	81
4	US 20040253698 A1		US-PGPUB	20041216	90
5	US 20040253669 A1		US-PGPUB	20041216	78
6	US 20040241796 A1		US-PGPUB	20041202	75
7	US 20040241653 A1		US-PGPUB	20041202	678
8	US 20040224386 A1		US-PGPUB	20041111	80
9	US 20040208879 A1		US-PGPUB	20041021	66
10	US 20040185460 A1		US-PGPUB	20040923	36
11	US 20040171539 A1		US-PGPUB	20040902	59

	Title
1	Novel kinases and uses thereof
2	Systems and methods for characterizing a biological condition or agent using precision gene expression profiles
3	Regulation of human serine/threonine protein kinase
4	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
5	Regulation of human dcamkl1-like serine/threonine protein kinase
6	Regulation of human nek-like serine/threonine protein kinase
7	Methods for identifying marker genes for cancer
8	Protein tyrosine kinases
9	Flt4 (VEGFR-3) as a target for tumor imaging and anti-tumor therapy
10	Novel mixed lineage kinase (7) (mlk7) polypeptide polynucleotides encoding the same and methods of use thereof
11	Regulation of human protein kinase-like protein

	Document ID	Kind Codes	Source	Issue Date	Pages
12	US 20040152123 A1		US-PGPUB	20040805	53
13	US 20040147004 A1		US-PGPUB	20040729	37
14	US 20040146939 A1		US-PGPUB	20040729	39
15	US 20040142891 A1		US-PGPUB	20040722	63
16	US 20040138417 A1		US-PGPUB	20040715	32
17	US 20040137593 A1		US-PGPUB	20040715	67
18	US 20040133352 A1		US-PGPUB	20040708	96
19	US 20040126861 A1		US-PGPUB	20040701	320
20	US 20040126395 A1		US-PGPUB	20040701	176
21	US 20040110927 A1		US-PGPUB	20040610	26
22	US 20040101885 A1		US-PGPUB	20040527	85

	Title
12	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
13	12832, a novel human kinase-like molecule and uses thereof
14	14189, a novel human kinase and uses thereof
15	Genes involved in immune related responses observed with asthma
16	Chimeric heteromultimer adhesins
17	Regulation of human serine/threonine protein kinase-like protein
18	Identification, monitoring and treatment of disease and characterization of biological condition using gene expression profiles
19	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
20	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
21	Mammalian secretory peptide - 9
22	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

	Document ID	Kind Codes	Source	Issue Date	Pages
23	US 20040082496 A1		US-PGPUB	20040429	358
24	US 20040077049 A1		US-PGPUB	20040422	55
25	US 20040076955 A1		US-PGPUB	20040422	253
26	US 20040072160 A1		US-PGPUB	20040415	337
27	US 20040043375 A1		US-PGPUB	20040304	66
28	US 20040038917 A1		US-PGPUB	20040226	266
29	US 20040038346 A1		US-PGPUB	20040226	138
30	US 20040038207 A1		US-PGPUB	20040226	259
31	US 20040037820 A1		US-PGPUB	20040226	77
32	US 20040033504 A1		US-PGPUB	20040219	104
33	US 20040029114 A1		US-PGPUB	20040212	570
34	US 20040023242 A1		US-PGPUB	20040205	144
35	US 20040010136 A1		US-PGPUB	20040115	73

	Title
23	ACE-2 modulating compounds and methods of use thereof
24	Regulation of human wee1-like serine/threonine protein kinase
25	Methods of diagnosis of bladder cancer, compositions and methods of screening for modulators of bladder cancer
26	Molecular toxicology modeling
27	Regulation of human serine-threonine protein kinase
28	Gene expression in biological conditions
29	Novel human protein kinases and uses therefor
30	Gene expression in bladder tumors
31	Flt4 (VEGFR-3) as a target for tumor imaging and anti-tumor therapy
32	Novel compounds
33	Methods of diagnosis of breast cancer, compositions and methods of screening for modulators of breast cancer
34	Human kinases
35	Composition for the detection of signaling pathway gene expression

	Document ID	Kind Codes	Source	Issue Date	Pages
36	US 20040009907 A1		US-PGPUB	20040115	651
37	US 20040009154 A1		US-PGPUB	20040115	53
38	US 20040005644 A1		US-PGPUB	20040108	94
39	US 20030232037 A1		US-PGPUB	20031218	59
40	US 20030219771 A1		US-PGPUB	20031127	96
41	US 20030206886 A1		US-PGPUB	20031106	25
42	US 20030204072 A1		US-PGPUB	20031030	80
43	US 20030199429 A1		US-PGPUB	20031023	90
44	US 20030199020 A1		US-PGPUB	20031023	32
45	US 20030186910 A1		US-PGPUB	20031002	42

	Title
36	Proteins and nucleic acids encoding same
37	Selections of genes and methods of using the same for diagnosis and for targeting the therapy of select cancers
38	Method and composition for detection and treatment of breast cancer
39	Genes involved in immune related responses observed with asthma
40	Identification, monitoring and treatment of disease and characterization of biological condition using gene expression profiles
41	Neutralization of immune suppressive factors for the immunotherapy of cancer
42	PROTEIN TYROSINE KINASES
43	Use of heregulin as a growth factor
44	CHIMERIC HETEROMULTIMER ADHESINS
45	Polynucleotides encoding rat pituitary tumor transforming gene (PTTG) carboxy-terminal peptides and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation

	Document ID	Kind Codes	Source	Issue Date	Pages
46	US 20030186902 A1		US-PGPUB	20031002	110
47	US 20030175266 A1		US-PGPUB	20030918	41
48	US 20030171542 A1		US-PGPUB	20030911	26
49	US 20030171267 A1		US-PGPUB	20030911	155
50	US 20030170714 A1		US-PGPUB	20030911	111
51	US 20030153522 A1		US-PGPUB	20030814	42
52	US 20030152573 A1		US-PGPUB	20030814	41
53	US 20030148978 A1		US-PGPUB	20030807	41

	Title
46	Method of regulating biological activity of pituitary tumor transforming gene (PTTG)1 using PTTG2
47	Antibodies against pituitary tumor transforming gene carboxy-terminal (PTTG-C) peptides
48	Mammalian secretory peptide - 9
49	Albumin fusion proteins
50	Transcripts encoding immunomodulatory polypeptides
51	Rat pituitary tumor transforming gene (PTTG) carboxy-terminal peptides and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation
52	Antibodies against mouse pituitary tumor transforming gene carboxy-terminal (PTTG-C) peptides
53	Oligonucleotides antisense to mouse pituitary tumor transforming gene carboxy-terminal (PTTG-C) and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation

	Document ID	Kind Codes	Source	Issue Date	Pages
54	US 20030148977 A1		US-PGPUB	20030807	40
55	US 20030148298 A1		US-PGPUB	20030807	86
56	US 20030147918 A1		US-PGPUB	20030807	164
57	US 20030147892 A1		US-PGPUB	20030807	41
58	US 20030140359 A1		US-PGPUB	20030724	41
59	US 20030138905 A1		US-PGPUB	20030724	67
60	US 20030134319 A1		US-PGPUB	20030717	53
61	US 20030134280 A1		US-PGPUB	20030717	62

	Title
54	Oligonucleotides antisense to rat pituitary tumor transforming gene carboxy-terminal (PTTG-C) and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation
55	Methods for diagnosing and treating systemic lupus erythematosus disease and compositions thereof
56	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
57	Antibodies against rat pituitary tumor transforming gene carboxy-terminal (PTTG-C) peptides
58	Non-human mammals comprising cells expressing vector-borne rat PTTG carboxy-terminal-related DNA
59	Compositions isolated from bovine mammary gland and methods for their use
60	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
61	Identifying drugs for and diagnosis of benign prostatic hyperplasia using gene expression profiles

	Document ID	Kind Codes	Source	Issue Date	Pages
62	US 20030131366 A1		US-PGPUB	20030710	41
63	US 20030130219 A1		US-PGPUB	20030710	42
64	US 20030129645 A1		US-PGPUB	20030710	90
65	US 20030118603 A1		US-PGPUB	20030626	162
66	US 20030114378 A1		US-PGPUB	20030619	41
67	US 20030108937 A1		US-PGPUB	20030612	39
68	US 20030108890 A1		US-PGPUB	20030612	32
69	US 20030104457 A1		US-PGPUB	20030605	21

	Title
62	Non-human mammals comprising cells expressing vector-borne mouse PTTG carboxy-terminal-related DNA
63	Polynucleotides encoding mouse pituitary tumor transforming gene (PTTG) carboxy-terminal peptides and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation
64	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
65	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
66	Mouse pituitary tumor transforming gene (PTTG) carboxy-terminal peptides and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation
67	Methods and compositions for the diagnosis and treatment of cellular proliferation disorders using 20750
68	In silico screening for phenotype-associated expressed sequences
69	Method and device for detecting and monitoring alcoholism and related diseases using microarrays

	Document ID	Kind Codes	Source	Issue Date	Pages
70	US 20030104357 A1		US-PGPUB	20030605	20
71	US 20030095980 A1		US-PGPUB	20030522	164
72	US 20030086934 A1		US-PGPUB	20030508	88
73	US 20030086906 A1		US-PGPUB	20030508	8
74	US 20030079242 A1		US-PGPUB	20030424	40
75	US 20030078389 A1		US-PGPUB	20030424	51
76	US 20030059918 A1		US-PGPUB	20030327	54
77	US 20030039658 A1		US-PGPUB	20030227	48
78	US 20030036526 A1		US-PGPUB	20030220	24
79	US 20030036183 A1		US-PGPUB	20030220	73
80	US 20030036110 A1		US-PGPUB	20030220	157

81	US 20030031662 A1		US-PGPUB	20030213	42

	Title
70	Jaagsiekte sheep retroviral packaging cell lines and methods relating thereto
71	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
72	Basal cell markers in breast cancer and uses thereof
73	Method of inducing an immune response using vaccinia virus recombinants
74	Non-human mammals comprising cells expressing vector-borne PTTG carboxy-terminal-related DNA
75	Gamma-heregulin
76	Regulation of human serine/threonine protein kinase
77	MCEF, a novel transcription factor
78	Leptin-mediated gene-induction
79	Serine threonine kinase member, h2520-40
80	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use

81	Pituitary tumor transforming gene (PTTG) carboxy-terminal peptides and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation

	Document ID	Kind Codes	Source	Issue Date	Pages
82	US 20030026759 A1		US-PGPUB	20030206	48
83	US 20030022232 A1		US-PGPUB	20030130	41
84	US 20030018001 A1		US-PGPUB	20030123	61
85	US 20020182706 A1		US-PGPUB	20021205	155
86	US 20020164701 A1		US-PGPUB	20021107	34
87	US 20020147325 A1		US-PGPUB	20021010	81
88	US 20020147162 A1		US-PGPUB	20021010	75
89	US 20020142428 A1		US-PGPUB	20021003	180
90	US 20020132325 A1		US-PGPUB	20020919	89

	Title
82	SCREENING AND THERAPY FOR LYMPHATIC DISORDERS INVOLVING THE FLT4 RECEPTOR TYROSINE KINASE (VEGFR-3)
83	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
84	Methods of using pituitary tumor transforming gene (PTTG) carboxy-terminal peptides to inhibit neoplastic cellular proliferation and/or transformation of breast and ovarian cells
85	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
86	Human gene marker for metabolic disease
87	ANTIBODIES TO RECEPTOR PROTEIN KINASES
88	Methods of modulating angiogenesis by regulating the expression of pituitary tumor transforming gene (PTTG)
89	Novel kinases and uses thereof
90	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

	Document ID	Kind Codes	Source	Issue Date	Pages
91	US 20020132324 A1		US-PGPUB	20020919	90
92	US 20020122768 A1		US-PGPUB	20020905	49
93	US 20020119548 A1		US-PGPUB	20020829	53
94	US 20020082189 A1		US-PGPUB	20020627	320
95	US 20020081299 A1		US-PGPUB	20020627	98
96	US 20020076783 A1		US-PGPUB	20020620	52
97	US 20020055160 A1		US-PGPUB	20020509	78
98	US 20020042087 A1		US-PGPUB	20020411	91
99	US 20020034780 A1		US-PGPUB	20020321	138
100	US 20020002276 A1		US-PGPUB	20020103	32
101	US 20010044103 A1		US-PGPUB	20011122	19
102	US 20010023241 A1		US-PGPUB	20010920	68

	Title
91	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
92	Stable radiopharmaceutical compositions and methods for preparation thereof
93	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
94	ISOLATED HUMAN SERINE/THREONINE KINASE NUCLEIC ACID MOLECULES ENCODING HUMAN SERINE/THREONINE KINASE AND USES THEREOF
95	Hair cell disorders
96	Plants and plants cells expressing histidine tagged intimin
97	ISOLATED HUMAN KINASE PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES THEREOF
98	Use of heregulin as a growth factor
99	Novel human protein kinases and uses therefor
100	Chimeric heteromultimer adhesins
101	Methods for the diagnosis and prognosis of acute leukemias
102	Use of heregulin as a growth factor

	Document ID	Kind Codes	Source	Issue Date	Pages
103	US 6894031 B1		USPAT	20050517	41
104	US 6890737 B1		USPAT	20050510	148
105	US 6858586 B2		USPAT	20050222	40
106	US 6858418 B2		USPAT	20050222	215
107	US 6835380 B2		USPAT	20041228	40
108	US 6825324 B2		USPAT	20041130	80
109	US 6824777 B1		USPAT	20041130	69
110	US 6822084 B1		USPAT	20041123	46
111	US 6780626 B2		USPAT	20040824	87
112	US 6764820 B2		USPAT	20040720	48

	Title
103	Pituitary tumor transforming gene (PTTG) carboxy-terminal peptides and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation
104	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
105	Pituitary tumor transforming gene (PTTG) carboxy-terminal peptides and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation
106	Kinases and uses thereof
107	Antibodies against rat pituitary tumor transforming gene carboxy-terminal (PTTG-C) peptides
108	Antibodies to receptor protein tyrosine kinases
109	Flt4 (VEGFR-3) as a target for tumor imaging and anti-tumor therapy
110	Corynebacterium glutamicum genes encoding stress, resistance and tolerance proteins
111	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

112	Screening for lymphatic disorders involving the FLT4 receptor tyrosine kinase (VEGFR-3)

	Document ID	Kind Codes	Source	Issue Date	Pages
113	US 6759221 B1		USPAT	20040706	47
114	US 6733978 B2		USPAT	20040511	50
115	US 6696290 B2		USPAT	20040224	31
116	US 6664085 B2		USPAT	20031216	81
117	US 6656698 B1		USPAT	20031202	36
118	US 6653064 B1		USPAT	20031125	21
119	US 6638721 B2		USPAT	20031028	133
120	US 6630337 B2		USPAT	20031007	50
121	US 6617117 B1		USPAT	20030909	46
122	US 6582947 B1		USPAT	20030624	18
123	US 6566060 B1		USPAT	20030520	38
124	US 6558903 B1		USPAT	20030506	163
125	US 6555666 B1		USPAT	20030429	105

	Title
113	14189, a novel human kinase and uses thereof
114	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
115	ErbB2 and ErbB4 Chimeric Heteromultimeric Adhesins
116	Isolated human calcium/calmodulin (CaMk) dependent kinase proteins
117	12832, a novel human kinase-like molecule and uses thereof
118	Method for identifying compounds useful in the therapy of bone disorders
119	Human protein kinases and uses therefor
120	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
121	MAP kinases: polypeptides, polynucleotides and uses thereof
122	Medical use of gene and vector encoding a multisubstrate deoxyribonucleoside kinase
123	Methods for detection and treatment of disease using a glycosyltransferase
124	Kinases and uses thereof
125	Transcripts encoding immunomodulatory polypeptides

	Document ID	Kind Codes	Source	Issue Date	Pages
126	US 6544741 B1		USPAT	20030408	25
127	US 6528294 B2		USPAT	20030304	86
128	US 6500941 B1		USPAT	20021231	50
129	US 6500938 B1		USPAT	20021231	65
130	US 6482935 B1		USPAT	20021119	46
131	US 6475999 B1		USPAT	20021105	7
132	US 6455291 B1		USPAT	20020924	50
133	US 6444870 B1		USPAT	20020903	34
134	US 6428579 B1		USPAT	20020806	24
135	US 6387677 B1		USPAT	20020514	85
136	US 6372468 B1		USPAT	20020416	87

137	US 6335170 B1		USPAT	20020101	227

	Title
126	Sequence specific and sequence non-specific methods and materials for cDNA normalization and subtraction
127	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
128	Gamma-heregulin
129	Composition for the detection of signaling pathway gene expression
130	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
131	Method of inducing an immune response using vaccinia virus recombinants
132	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof
133	Methods for assessing the role of calcineurin immunosuppression and neurotoxicity
134	Implantable prosthetic devices coated with bioactive molecules
135	Nucleic acid molecules encoding human calcium/calmodulin (CaMK) dependent kinase proteins
136	Isolated human kinase proteins, nucleic acid molecules encoding human kinase proteins, and uses thereof

137	Gene expression in bladder tumors

	Document ID	Kind Codes	Source	Issue Date	Pages
138	US 6245503 B1		USPAT	20010612	152
139	US 6166288 A		USPAT	20001226	70
140	US 6150134 A		USPAT	20001121	148
141	US 6107046 A		USPAT	20000822	67
142	US 6096873 A		USPAT	20000801	49
143	US 6096527 A		USPAT	20000801	81
144	US 6093700 A		USPAT	20000725	7
145	US 6093560 A		USPAT	20000725	29
146	US 6087144 A		USPAT	20000711	80
147	US 6001621 A		USPAT	19991214	79
148	US 5985589 A		USPAT	19991116	22
149	US 5882910 A		USPAT	19990316	25
150	US 5858753 A		USPAT	19990112	20
151	US 5830699 A		USPAT	19981103	26

	Title
138	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
139	Method of producing transgenic animals for xenotransplantation expressing both an enzyme masking or reducing the level of the gal epitope and a complement inhibitor
140	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
141	Antibodies to Flt4, a receptor tyrosine kinase and uses thereof
142	Gamma-heregulin
143	Nucleic acids encoding protein tryosine kinases
144	Method of inducing an immune response using vaccinia virus recombinants encoding GM-CSF
145	Nucleic acid molecule encoding Ste20 oxidant stress response kinase-1 (SOK-1) polypeptide
146	Protein tyrosine kinases
147	Protein tyrosine kinases
148	Lipid kinase
149	Lipid kinase
150	Lipid kinase
151	SOK-1 and methods of use

	Document ID	Kind Codes	Source	Issue Date	Pages
152	US 5817479 A		USPAT	19981006	30
153	US 5770567 A		USPAT	19980623	42
154	US 5763213 A		USPAT	19980609	43
155	US 5756456 A		USPAT	19980526	42
156	US 5709858 A		USPAT	19980120	79
157	US 5667780 A		USPAT	19970916	42

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1	US 20050089907 A1		US-PGPUB	20050428	18
2	US 20050026836 A1		US-PGPUB	20050203	312
3	US 20050019885 A1		US-PGPUB	20050127	14
4	US 20040229331 A1		US-PGPUB	20041118	13
5	US 20040209297 A1		US-PGPUB	20041021	26
6	US 20040203058 A1		US-PGPUB	20041014	17
7	US 20040180416 A1		US-PGPUB	20040916	20
8	US 20040175749 A1		US-PGPUB	20040909	17
9	US 20040143114 A1		US-PGPUB	20040722	39
10	US 20040030110 A1		US-PGPUB	20040212	518
11	US 20030225257 A1		US-PGPUB	20031204	78
12	US 20030181705 A1		US-PGPUB	20030925	18
13	US 20030175949 A1		US-PGPUB	20030918	17
14	US 20030166889 A1		US-PGPUB	20030904	20
15	US 20030008365 A1		US-PGPUB	20030109	14

	Title
1	Novel human kinases and polynucleotides encoding the same
2	Composition for the treatment of damaged tissue
3	Novel human kinases and polynucleotides encoding the same
4	Novel human kinase and polynucleotides encoding the same
5	Novel human kinases and polynucleotides encoding the same
6	Novel human kinase and polynucleotides encoding the same
7	Novel human kinases and polynucleotides encoding the same
8	Novel human kinases and polynucleotides encoding the same
9	Novel bicyclonucleoside analogues
10	Novel proteins and nucleic acids encoding same
11	Novel human kinases and polynucleotides encoding the same
12	Novel human kinases and polynucleotides encoding the same
13	Novel human kinase and polynucleotides encoding the same
14	Novel human kinases and polynucleotides encoding the same
15	Novel human kinases and polynucleotides encoding the same

	Document ID	Kind Codes	Source	Issue Date	Pages
16	US 20020164737 A1		US-PGPUB	20021107	13
17	US 20020161213 A1		US-PGPUB	20021031	78
18	US 20020147320 A1		US-PGPUB	20021010	21
19	US 20020123622 A1		US-PGPUB	20020905	26
20	US 20020123621 A1		US-PGPUB	20020905	13
21	US 20020110908 A1		US-PGPUB	20020815	18
22	US 6864079 B2		USPAT	20050308	13
23	US 6861241 B2		USPAT	20050301	13
24	US 6861240 B2		USPAT	20050301	17
25	US 6815188 B2		USPAT	20041109	18
26	US 6797510 B1		USPAT	20040928	17
27	US 6777545 B2		USPAT	20040817	20
28	US 6773906 B2		USPAT	20040810	17
29	US 6734010 B2		USPAT	20040511	14
30	US 6734009 B2		USPAT	20040511	26

	Title
16	Novel human kinase and polynucleotides encoding the same
17	Novel human kinases and polynucleotides encoding the same
18	Novel human kinase proteins and polynucleotides encoding the same
19	Novel human kinases and polynucleotides encoding the same
20	Novel human kinase and polynucleotides encoding the same
21	Novel human kinases and polynucleotides encoding the same
22	Human kinase and polynucleotides encoding the same
23	Human kinase and polynucleotides encoding the same
24	Human kinases and polynucleotides encoding the same
25	Human kinases and polynucleotides encoding the same
26	Human kinases and polynucleotides encoding the same
27	Human kinases and polynucleotides encoding the same
28	Human kinase and polynucleotides encoding the same
29	Human kinases and polynucleotides encoding the same
30	Human kinases and polynucleotides encoding the same

	Document ID	Kind Codes	Source	Issue Date	Pages
31	US 6593125 B2		USPAT	20030715	18
32	US 6586230 B1		USPAT	20030701	17
33	US 6579710 B2		USPAT	20030617	75
34	US 6511840 B1		USPAT	20030128	27

	Title
31	Human kinases and polynucleotides encoding the same
32	Human kinase and polynucleotides encoding the same
33	Human kinases and polynucleotides encoding the same
34	Human kinase proteins and polynucleotides encoding the same

	Title
152	Human kinase homologs
153	Sensory and motor neuron derived factor (SMDF)
154	Sensory and motor neuron derived factor (SMDF)
155	Methods involving sensory and motor neuron derived factor (SMDF)
156	Antibodies specific for Rse receptor protein tyrosine kinase
157	Antibodies to SMDF

	Document ID	Kind Codes	Source	Issue Date	Pages
1	US 20040126395 A1		US-PGPUB	20040701	176
2	US 20040023242 A1		US-PGPUB	20040205	144
3	US 20040009907 A1		US-PGPUB	20040115	651
4	US 20030186910 A1		US-PGPUB	20031002	42
5	US 20030186902 A1		US-PGPUB	20031002	110
6	US 20030175266 A1		US-PGPUB	20030918	41
7	US 20030171267 A1		US-PGPUB	20030911	155
8	US 20030153522 A1		US-PGPUB	20030814	42
9	US 20030152573 A1		US-PGPUB	20030814	41

	Title
1	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
2	Human kinases
3	Proteins and nucleic acids encoding same
4	Polynucleotides encoding rat pituitary tumor transforming gene (PTTG) carboxy-terminal peptides and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation
5	Method of regulating biological activity of pituitary tumor transforming gene (PTTG)1 using PTTG2
6	Antibodies against pituitary tumor transforming gene carboxy-terminal (PTTG-C) peptides
7	Albumin fusion proteins
8	Rat pituitary tumor transforming gene (PTTG) carboxy-terminal peptides and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation
9	Antibodies against mouse pituitary tumor transforming gene carboxy-terminal (PTTG-C) peptides

	Document ID	Kind Codes	Source	Issue Date	Pages
10	US 20030148978 A1		US-PGPUB	20030807	41
11	US 20030148977 A1		US-PGPUB	20030807	40
12	US 20030147918 A1		US-PGPUB	20030807	164
13	US 20030147892 A1		US-PGPUB	20030807	41
14	US 20030140359 A1		US-PGPUB	20030724	41
15	US 20030131366 A1		US-PGPUB	20030710	41

	Title
10	Oligonucleotides antisense to mouse pituitary tumor transforming gene carboxy-terminal (PTTG-C) and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation
11	Oligonucleotides antisense to rat pituitary tumor transforming gene carboxy-terminal (PTTG-C) and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation
12	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
13	Antibodies against rat pituitary tumor transforming gene carboxy-terminal (PTTG-C) peptides
14	Non-human mammals comprising cells expressing vector-borne rat PTTG carboxy-terminal-related DNA
15	Non-human mammals comprising cells expressing vector-borne mouse PTTG carboxy-terminal-related DNA

	Document ID	Kind Codes	Source	Issue Date	Pages
16	US 20030130219 A1		US-PGPUB	20030710	42
17	US 20030118603 A1		US-PGPUB	20030626	162
18	US 20030114378 A1		US-PGPUB	20030619	41
19	US 20030095980 A1		US-PGPUB	20030522	164
20	US 20030079242 A1		US-PGPUB	20030424	40
21	US 20030036110 A1		US-PGPUB	20030220	157
22	US 20030031662 A1		US-PGPUB	20030213	42

	Title
16	Polynucleotides encoding mouse pituitary tumor transforming gene (PTTG) carboxy-terminal peptides and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation
17	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
18	Mouse pituitary tumor transforming gene (PTTG) carboxy-terminal peptides and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation
19	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
20	Non-human mammals comprising cells expressing vector-borne PTTG carboxy-terminal-related DNA
21	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
22	Pituitary tumor transforming gene (PTTG) carboxy-terminal peptides and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation

	Document ID	Kind Codes	Source	Issue Date	Pages
23	US 20030018001 A1		US-PGPUB	20030123	61
24	US 20020182706 A1		US-PGPUB	20021205	155
25	US 20020164701 A1		US-PGPUB	20021107	34
26	US 20020147162 A1		US-PGPUB	20021010	75
27	US 20020081299 A1		US-PGPUB	20020627	98
28	US 6894031 B1		USPAT	20050517	41
29	US 6890737 B1		USPAT	20050510	148
30	US 6858586 B2		USPAT	20050222	40

	Title
23	Methods of using pituitary tumor transforming gene (PTTG) carboxy-terminal peptides to inhibit neoplastic cellular proliferation and/or transformation of breast and ovarian cells
24	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
25	Human gene marker for metabolic disease
26	Methods of modulating angiogenesis by regulating the expression of pituitary tumor transforming gene (PTTG)
27	Hair cell disorders
28	Pituitary tumor transforming gene (PTTG) carboxy-terminal peptides and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation
29	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
30	Pituitary tumor transforming gene (PTTG) carboxy-terminal peptides and methods of use thereof to inhibit neoplastic cellular proliferation and/or transformation

	Document ID	Kind Codes	Source	Issue Date	Pages
31	US 6835380 B2		USPAT	20041228	40
32	US 6245503 B1		USPAT	20010612	152
33	US 6150134 A		USPAT	20001121	148

	Title
31	Antibodies against rat pituitary tumor transforming gene carboxy-terminal (PTTG-C) peptides
32	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use
33	Purified hepatitis C virus envelope proteins for diagnostic and therapeutic use